The New York
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The Official Journal Of

The Illinois State Medical Society

INDEX TO VOLUME 97

January — June, 1950

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THE N.Y. ACADEMY OF MEDICINE
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The ILLINOIS Medical Journal

VOL. 97 NO. 1

January, 1950

97
1950



Andy Hall (center) proudly exhibits the gold medal given him by the A.M.A. "for exceptional service by a general practitioner" to Ernest E. Irons (left) President of the A.M.A., as W. L. Pressly who won the Award in 1948 voices his approval.

(See page 5 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

IN THE MEDICAL MANAGEMENT OF GALLBLADDER DISEASE

WHEN THE SYMPTOMS ARE:	Pain, indigestion and flatulence and
WHEN THE DIAGNOSIS IS:	Chronic cholecystitis, biliary dyskinesia, or the postcholecystectomy syndrome
A RATIONAL REGIMEN OF THERAPY INCLUDES:	Adjusted diet to include fats which induce emptying of the gallbladder, ketocholanic acids which stimulate the flow of bile and antispasmodic medication to relax the sphincter of Oddi and allay the irritability of the gastrointestinal tract.

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combines all four bile acids
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in their "keto" or oxidized form.

DOSAGE:

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with or immediately following meals.

PAVATRINE® WITH PHENOBARBITAL

combines the smooth muscle relaxant,
Pavatrine, with phenobarbital,
the central nervous system sedative.

DOSAGE:

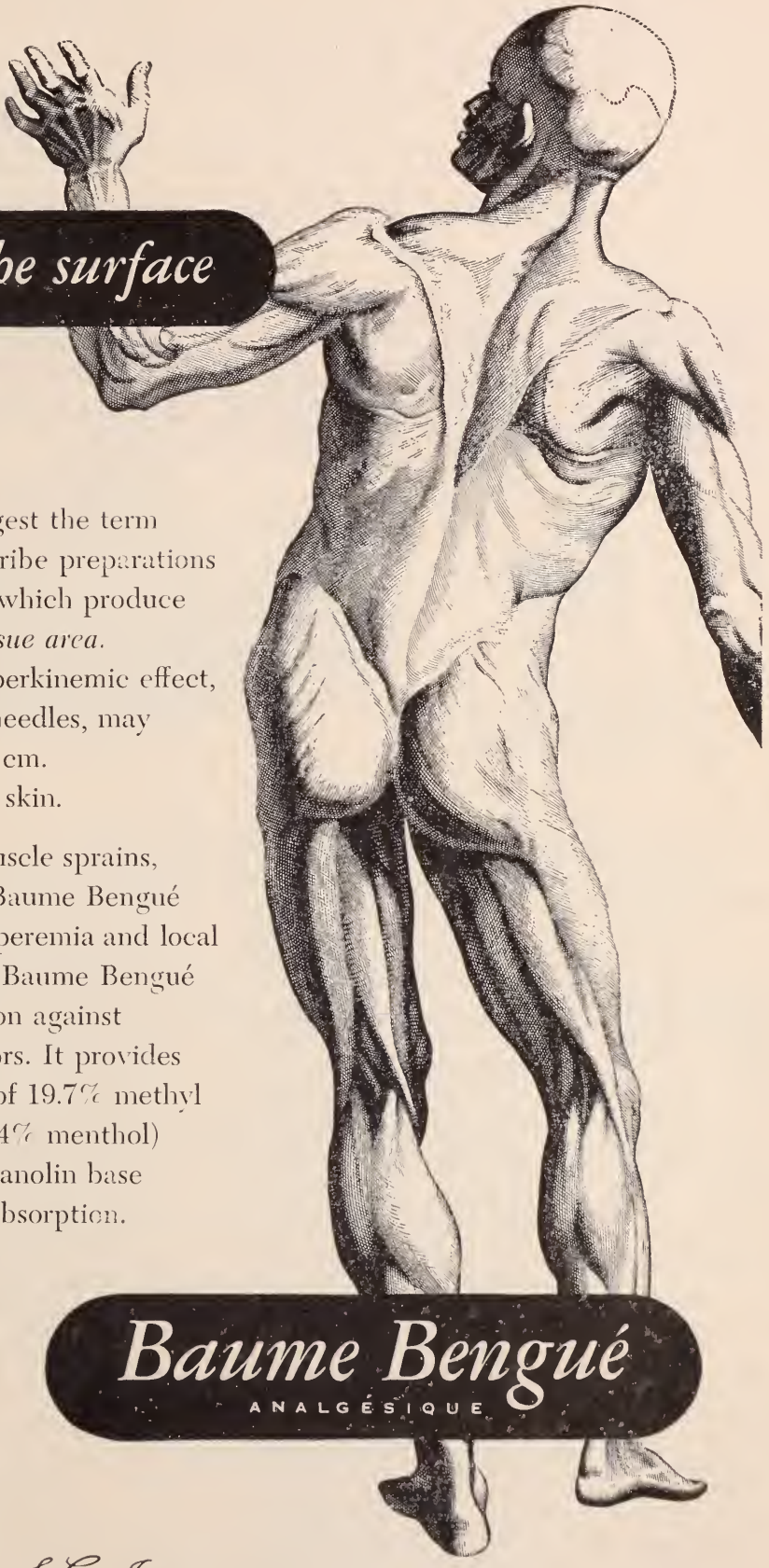
One or two tablets three or
four times a day as indicated.

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RESEARCH IN THE SERVICE OF MEDICINE

SEP 22 1950
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Beneath the surface

Lange and Weiner[1] suggest the term "hyperkinemics" to describe preparations such as Baume Bengué which produce blood flow *through a tissue area.* They point out that hyperkinemic effect, as measured by thermoneedles, may extend to a depth of 2.5 cm. below the surface of the skin.

In arthritis, myositis, muscle sprains, bursitis and arthralgia, Baume Bengué induces deep, active hyperemia and local analgesia. Systemically, Baume Bengué promotes salicylate action against underlying disease factors. It provides the high concentration of 19.7% methyl salicylate (as well as 14.4% menthol) in a specially prepared lanolin base to foster percutaneous absorption.

1. Lange, K., and Weiner, D.: J. Invest. Dermat. 12:263 (May) 1949.

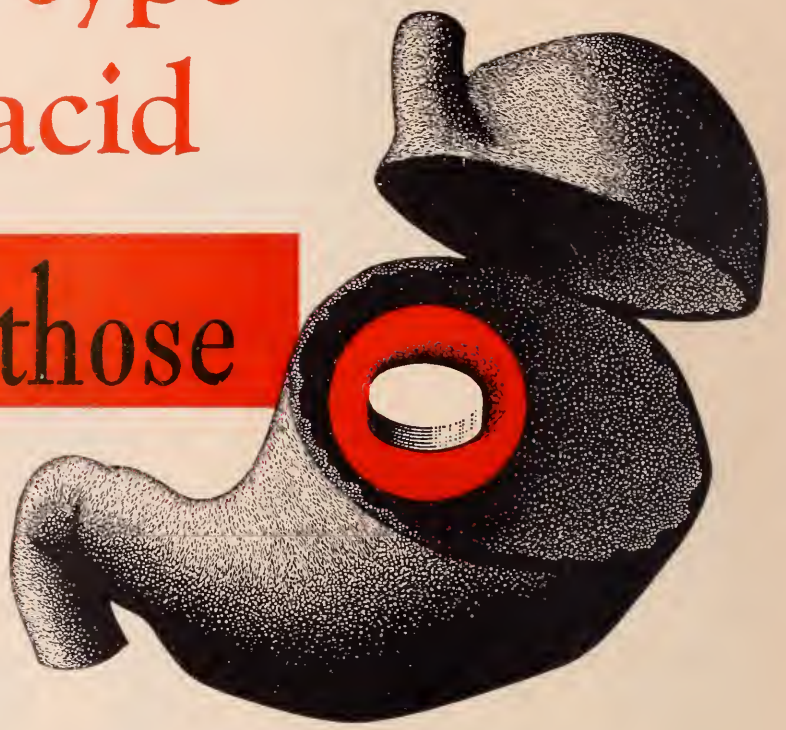
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Adult dose is 2 to 4 tablets or teaspoonfuls 4 times daily between meals.

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Advantages over adsorbent gels:

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2. *Protective coating*—mucin-like gel is rapidly formed and clings to ulcer crater and gastric mucosa.
3. *Non-systemic*—cannot disturb acid-base balance because it is non-absorbable.

1. Brick, I.B.: Amer. J. Dig. Dis., *In Press* 2. Bralow, Spellberg & Necheles: Scientific Exhibit #1112, A.M.A. Annual Session 1949

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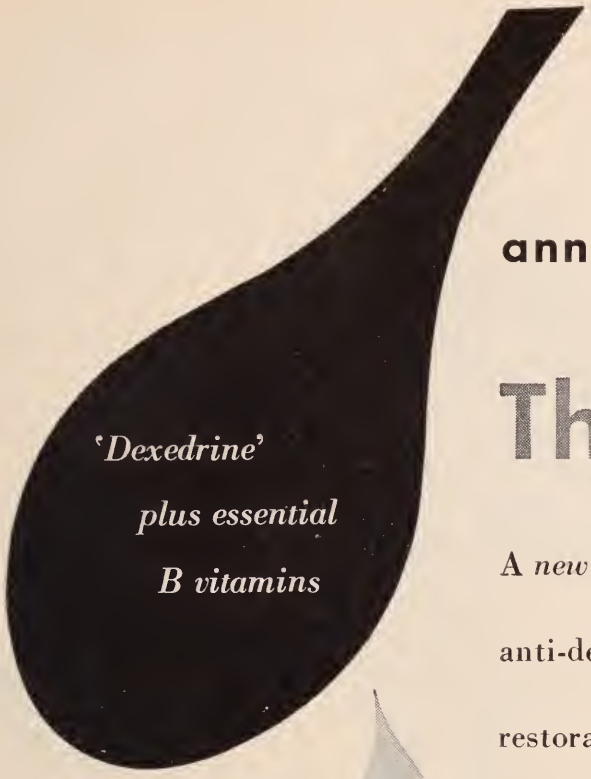
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Theptine assures patient acceptance by virtue of its pleasant flavor and pleasing color. The usual dosage is one teaspoonful (5 cc.) three times a day, *after* meals.

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'Dexedrine'* Sulfate, 2.5 mg.;
thiamine hydrochloride, 5.0 mg.;
riboflavin, 0.45 mg.; niacin, 6.7 mg.

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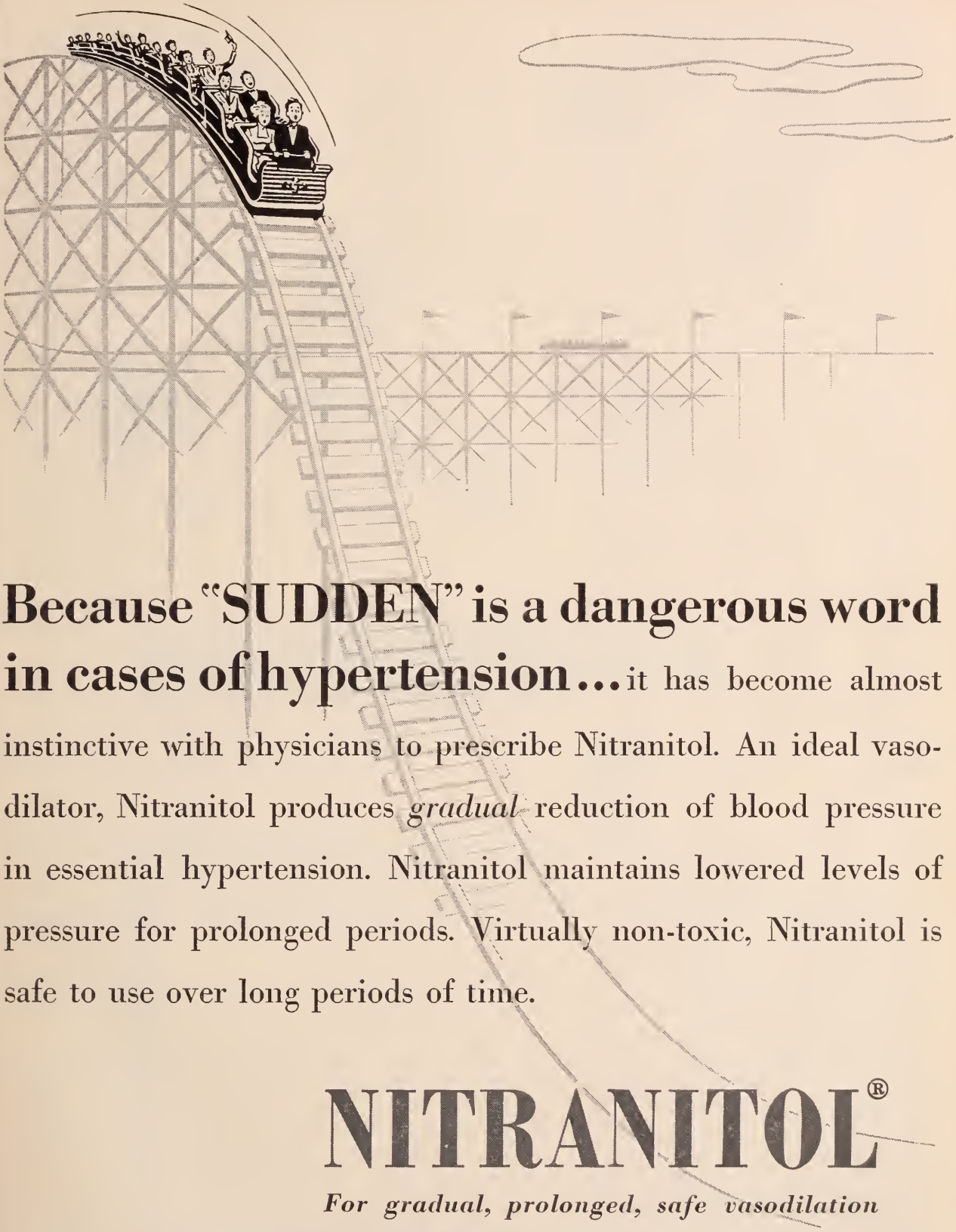
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For extra protection against hazards of capillary fragility. *Nitranitol with Phenobarbital and Rutin.* (Combines Rutin 20 mg. with above formula.)

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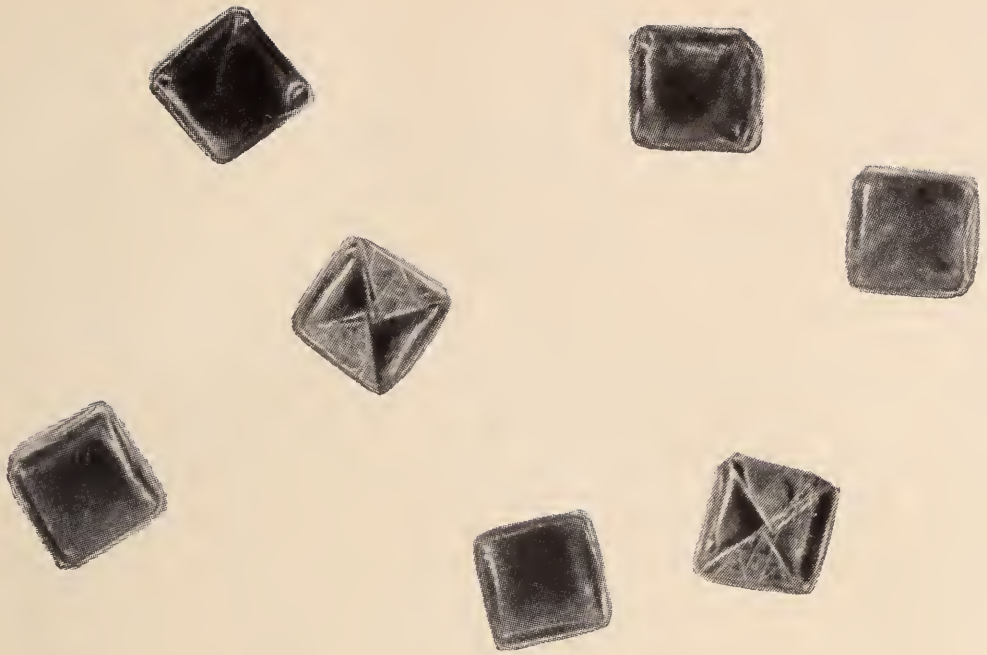
Aureomycin is useful for the control of bacteroides septicemia, brucellosis, Gram-negative infections—including those caused by the coli-aerogenes group, Gram-positive infections—including those caused by streptococci, staphylococci and pneumococci, granuloma inguinale, lymphogranuloma venereum, psittacosis, Q fever, rickettsialpox, Rocky Mountain spotted fever, subacute bacterial endocarditis resistant to penicillin, tularemia, typhus, viral-like and bacterial infections of the eye.

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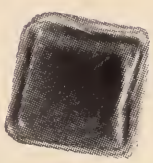
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By developing an entirely new type of enzymatic carrier, literally "a tablet within a tablet," Robins now makes available a triple-enzyme digestant—Entozyme. In *one small specially constructed tablet,* Entozyme "packs" pepsin, pancreatin and bile salts—in such a way that they are released only at the gastro-intestinal level of optimal activity. Thus Entozyme greatly simplifies and makes more effective the treatment of complex digestive disturbances of the gastro-intestinal tract. Clinical studies[1,2,3] have demonstrated the value of Entozyme in such conditions as chronic cholecystitis, chronic duodenal ulcer, acute and chronic pancreatitis and certain postoperative syndromes of the gastro-intestinal tract—in relieving nausea, belching, distention, anorexia, food tolerance, etc.

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DOSAGE: One or two tablets after each meal, or as directed by physician, without crushing or chewing.

AVAILABLE: Bottles of 25 and 100.

REFERENCES:

1. Kammandel, N. et al.: Awaiting publication.
2. McGavack, T. H. and Klotz, S. D.: Bull. Flower Fifth Ave. Hosp., 9:61, 1946.
3. Weissberg, J., McGavack, T. H. and Boyd, Linn J.: Am. J. Digest. Dis., 15:332, 1948.

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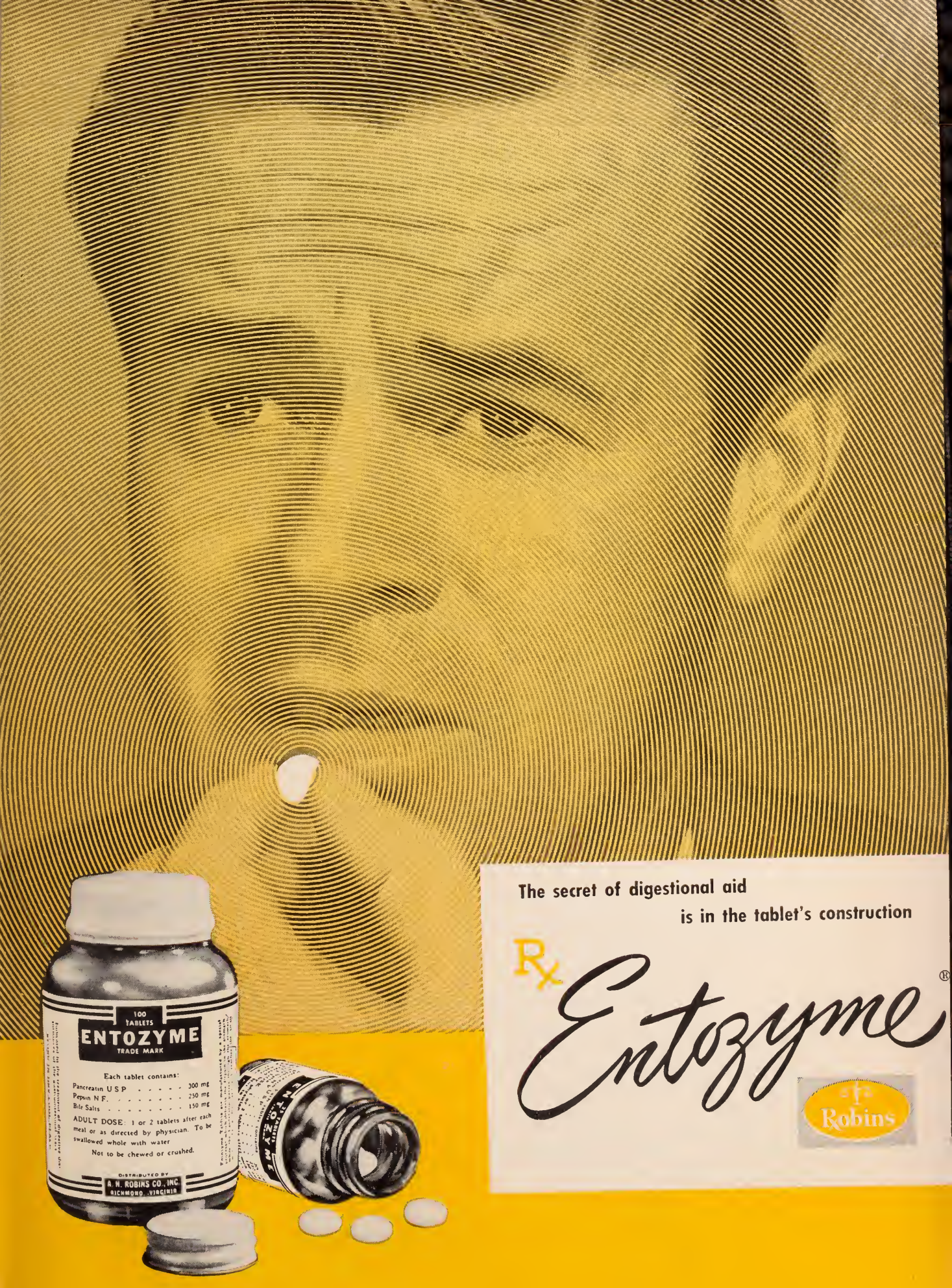
Releases pepsin in



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a coined word to describe the unique mechanical action of Entozyme Tablet.



The secret of digestional aid
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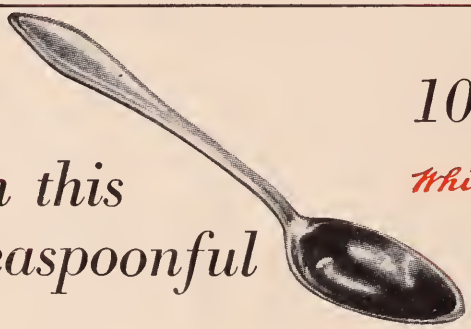
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in 2 new dosage forms



*50,000 units of penicillin**

in this dropper

White's **drop-cillin**

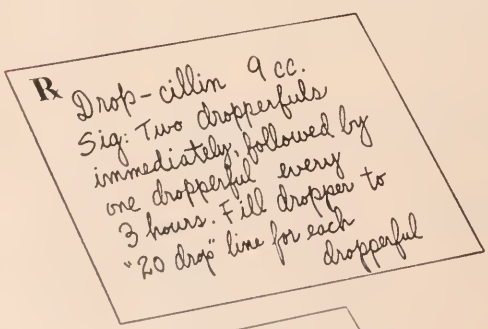


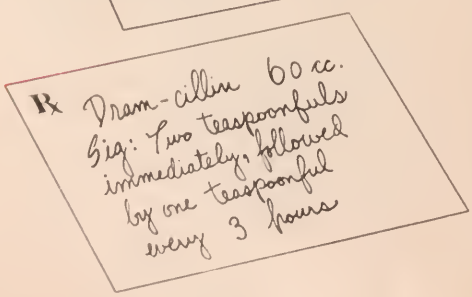
*100,000 units of penicillin**

in this teaspoonful

White's **dram-cillin**

... both with a delicious vanilla flavor





SUPPLIED:

DROP-CILLIN—in 9 cc. "drop-dosage" bottles cor taining 600,000 units of penicillin. Accompanyin calibrated dropper (filled to mark) delivers approx mately 20 drops (0.75 cc.) containing 50,000 units c penicillin.*

DRAM-CILLIN—in 60 cc. "teaspoonful-dosage" bo tles containing 1,200,000 units of penicillin. Eac teaspoonful (approx. 5 cc.) provides 100,000 units c penicillin.*

*(*buffered penicillin G potassium*)

more convenient, potent, palatable

hite's **DROP-CILLIN** has been specially formulated to provide a "drop-dosage" form of penicillin for oral administration to infants and young children. It may be administered directly or added to the first ounce or two of formula without significantly altering the taste or appearance of the formula.

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In suitable indicated cases, Drop-cillin and Dram-cillin obviate the use of injections with their attendant fear and discomfort, especially for the young patient. In addition, the nurse or mother is relieved of the chore of crushing tablets and forcing medication upon recalcitrant patients. Full and accurate dosage, with willing adherence to the dosage schedule, is assured.

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Supplied to the pharmacist as a dry stable crystalline powder. Dispensed as freshly prepared solutions, Drop-cillin and Dram-cillin will retain full stated penicillin potency for seven days when refrigerated.

HITE LABORATORIES, Inc., Pharmaceutical Manufacturers, Newark 7, New Jersey

White's



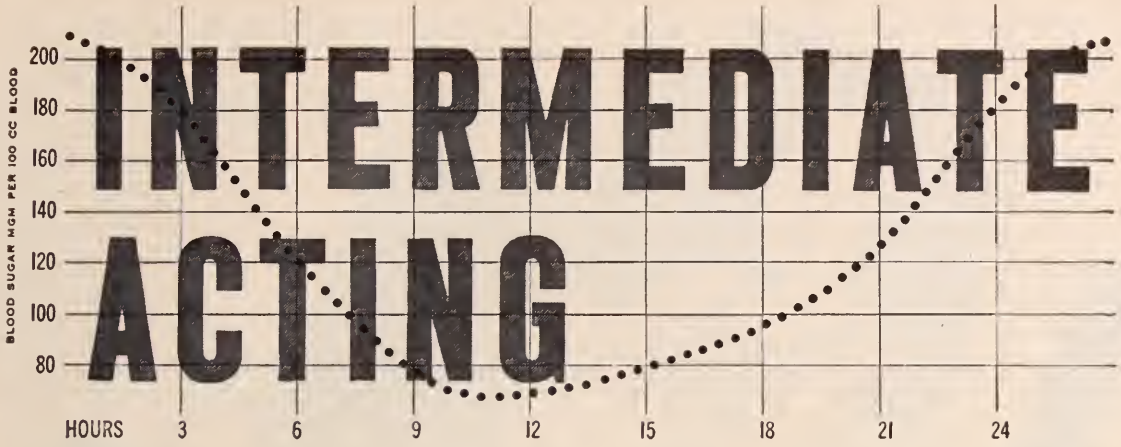
This liquid penicillin tastes good!

Your young patients will take ESKACILLIN willingly because it is so deliciously flavored, so easy to swallow. Furthermore, parents much prefer ESKACILLIN to the chore of crushing penicillin tablets and coaxing a sick child to swallow an unappealing mixture.

One teaspoonful (5 cc.) of ESKACILLIN contains 50,000 units of crystalline penicillin G—and produces a blood level equivalent to that obtained with a 50,000 unit penicillin tablet. ESKACILLIN is supplied in 2 fl. oz. bottles, providing 600,000 units of penicillin.

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IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B. W. & Co.'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B.W. & Co.'—or with a 2:1 mixture of regular insulin: protamine zinc insulin. *Ready-to-use* Globin Insulin 'B.W. & Co.' provides the desired intermediate action without preliminary mixing in vial or syringe.

In 10 cc. vials, U-40 and U-80.



'B.W.& CO.'—a mark to remember

1. Rohr, J.H., and Colwell, A.R.: Arch. Int. Med. 82:54, 1948.
2. ibid Proc. Am. Diabetes Assn. 8:37, 1948.

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PLUS VITAMIN C

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TABLETS

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CORICIDIN*

(antihistaminic—antipyretic—analgesic)

with Chlor-*Trimeton**

antihistaminic therapy

. . . prevents or aborts colds in 90% of cases when initiated within the first hour of symptoms.[1]

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. . . reduces the spread of infection to others by eliminating sneezing, lacrimation, rhinorrhea and coughing.[1]

DOSAGE AND TIMING: Two CORICIDIN tablets at the very first indication of a cold, then one tablet every three or four hours for three or four days. In established colds, one tablet every three or four hours for palliative effect.

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PACKAGING: CORICIDIN tablets, tubes of 12; bottles of 100 and 1000.

BIBLIOGRAPHY:

1. Brewster, J. M.: U. S. Nav. M. Bull. *49*:1, 1949.
2. Murray, H. G.: Indust. Med. *18*:215, 1949.

*T.M.

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BLOOMFIELD, N. J.

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Vasoconstriction
combined with
antibiotic therapy in

NEO-SYNEPHRINE

(brand of phenylephrine)

with

CRYSTALLINE PENICILLIN



In upper respiratory tract infections, topical application of penicillin to the nasal cavity has a decided bacteriostatic action against typical respiratory pathogenic microorganisms.

To provide clear passage for such therapy, Neo-Synephrine is combined with penicillin—shrinking engorged mucous membranes and allowing free access of the antibiotic.

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CRYSTALLINE PENICILLIN

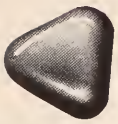
Stable • Full Potency

Supplied in combination package for preparing 10 cc. of a fresh buffered solution containing Neo-Synephrine hydrochloride 0.25% and Penicillin 5000 units per cc.

Winthrop-Stearns INC.
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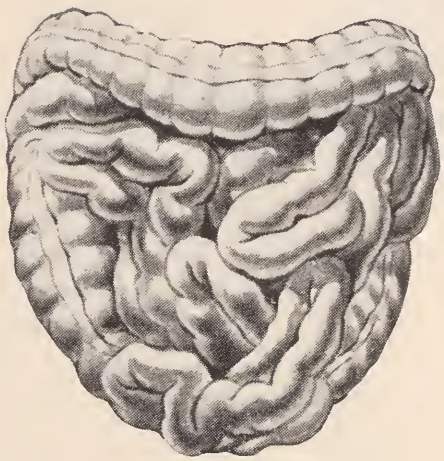


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deliver iron

where iron is

best absorbed



Unlike ordinary ferrous sulfate tablets, Feosol Tablets have a special, S.K.F.-developed vehicle and coating which—

1. prevent oxidation of the ferrous sulfate into the inferior ferric form

2. assure prompt disintegration in the acid medium of the stomach and upper duodenum, *where iron is best absorbed.*

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Each Feosol Tablet contains 3 grains exsiccated ferrous sulfate—
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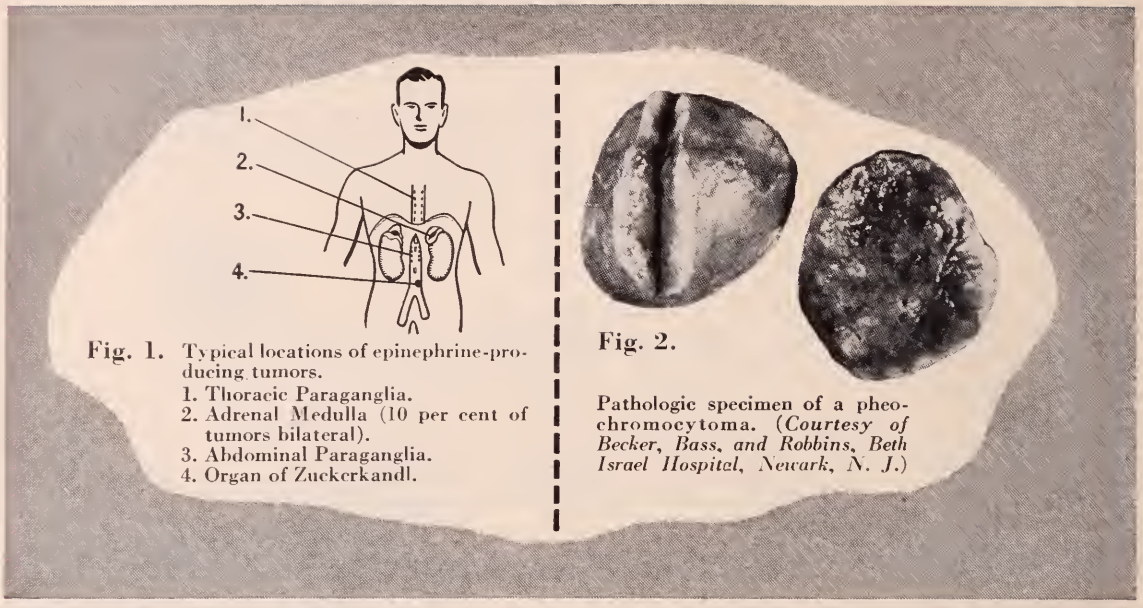


Fig. 1. Typical locations of epinephrine-producing tumors.
1. Thoracic Paraganglia.
2. Adrenal Medulla (10 per cent of tumors bilateral).
3. Abdominal Paraganglia.
4. Organ of Zuckerkandl.

Fig. 2.

Pathologic specimen of a pheochromocytoma. (*Courtesy of Becker, Bass, and Robbins, Beth Israel Hospital, Newark, N. J.*)

For the detection of Hypertension-producing
PHEOCHROMOCYTOMAS

Intravenous tests with Saline Solution of Benodaine* Hydrochloride indicate whether or not elevated blood pressure is caused by an epinephrine-producing pheochromocytoma.

This new Merck diagnostic aid, when administered intravenously in suitable doses, is adrenolytic but not sympatholytic.

In patients with hypertension caused by a pheochromocytoma, Benodaine produces a brief but significant decrease in blood pressure. In hypertensive patients who do not have this tumor, it produces either no significant change in blood pressure or a moderate elevation of short duration.

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*Benodaine is the trade-mark of Merck & Co., Inc. for its brand of piperoxane.

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(Brand of Piperoxane Hydrochloride)

(2-(1-Piperidylmethyl)-1,4-Benzodioxan Hydrochloride Merck)

NEW TRIPLE SULFONAMIDE

reduces Renal Crystalluria!

Each 0.5-Gm.
NEOTRESAMIDE Tablet contains:

Sulfamerazine	0.1 Gm.
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For the Prevention and Treatment of Thrombosis

Liquaemin® Sodium

'Organon'

(Heparin Sodium)



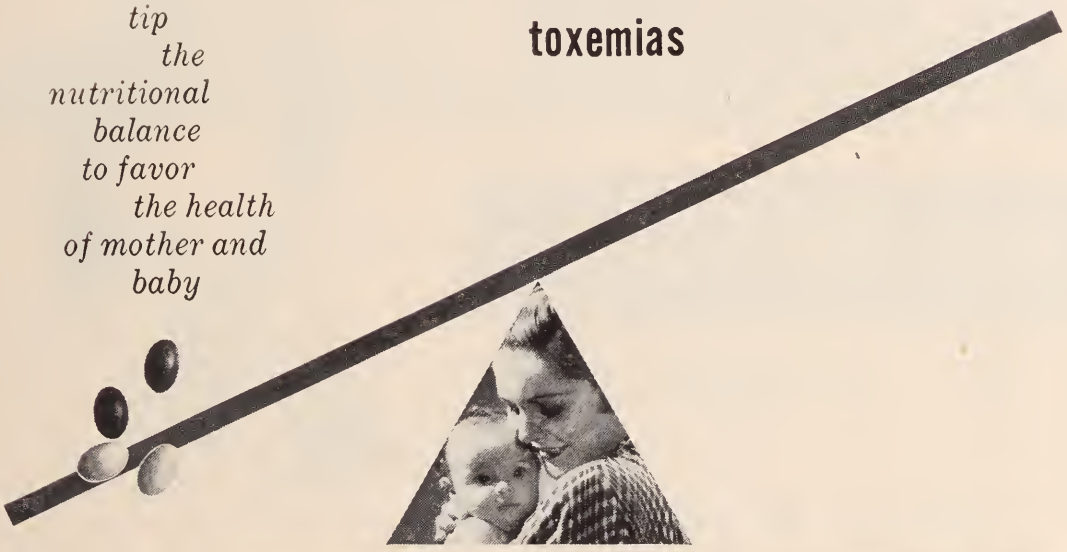
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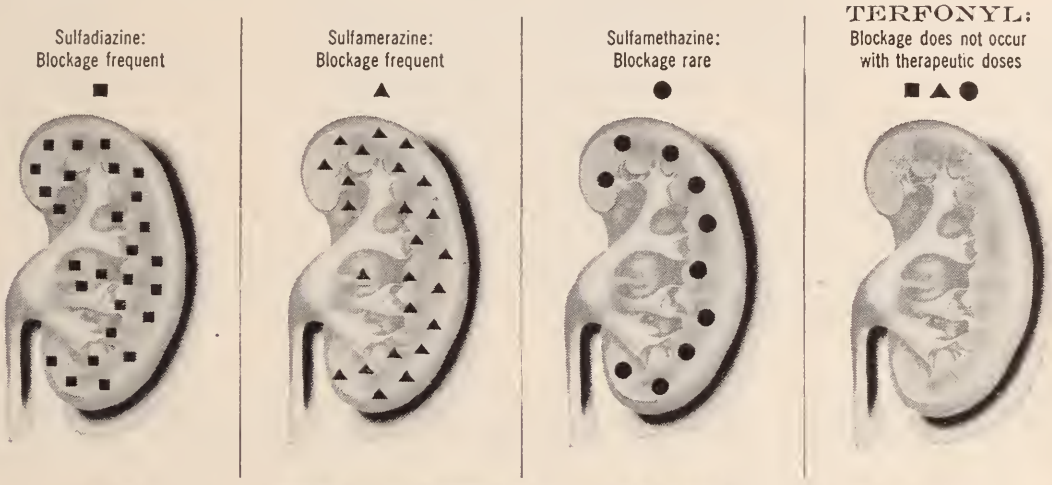
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Low Renal Toxicity



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The rapid antisepsis[2] and soothing relief which Cēpacol brings to inflamed, sore throats are important. Along with the fact that Cēpacol is non-irritating, non-toxic, and does not interfere with tissue healing. Too, patients are extremely grateful to you for prescribing something so effective that also is so *pleasant* to use—as either gargle or spray.

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The alkaline germicidal solution that works in partnership with saliva

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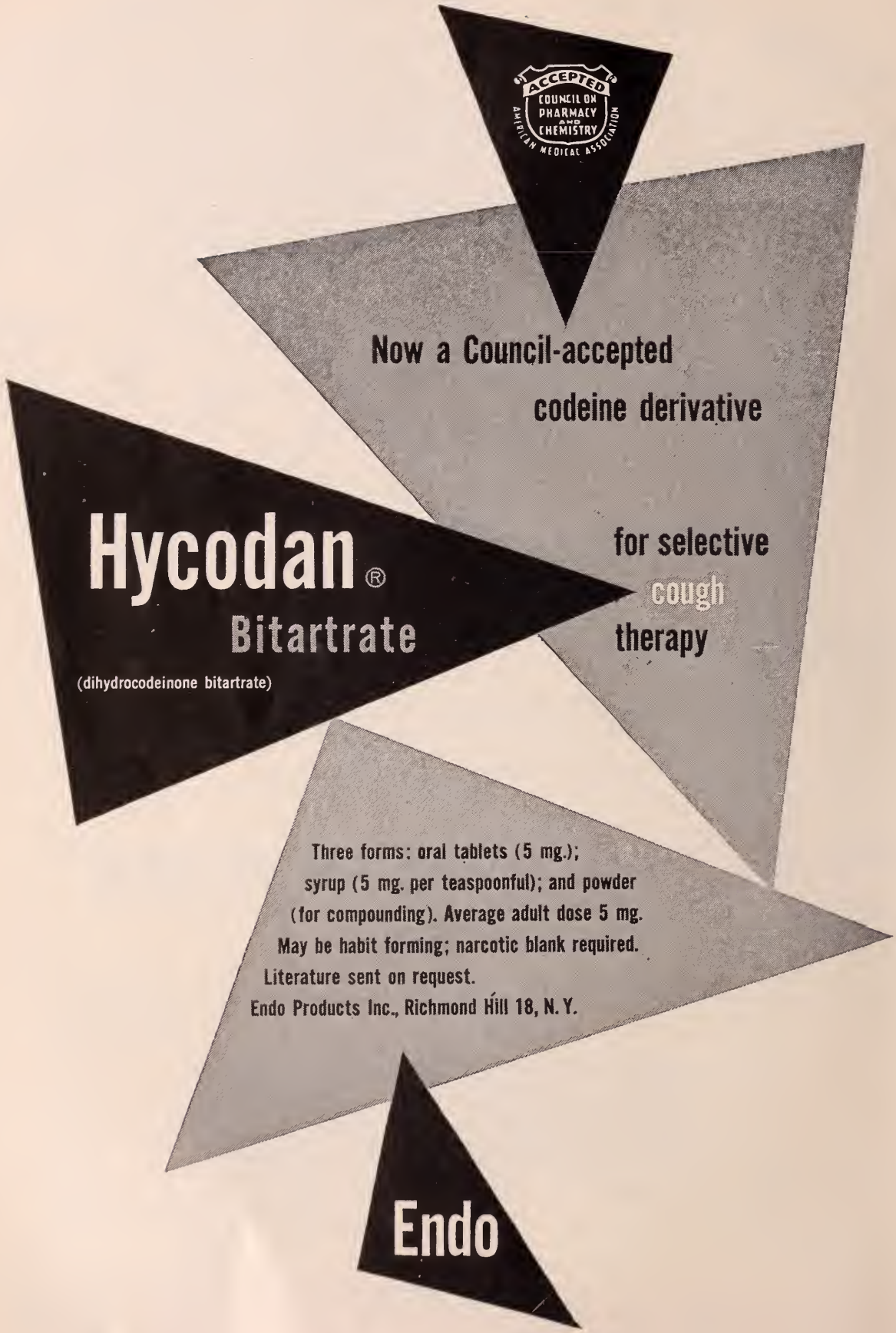
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Bitartrate
(dihydrocodeinone bitartrate)
for selective cough therapy
Three forms: oral tablets (5 mg.); syrup (5 mg. per teaspoonful); and powder (for compounding). Average adult dose 5 mg.
May be habit forming; narcotic blank required.
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complete topical treatment for middle and external ear infections



1. High Antibacterial Potency—high concentration of sulfa-urea at site of infection.
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Supplied in dropper bottles of ½-fluid ounce (15 cc.)

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National Research Council Allowances, Sedentary Man (154 lbs.)	2,400	70	1.0	1.2	12	1.5	5,000	1.2	1.8	12	75	Small Amount
Ovaltine in Milk, 3 Servings *	676	32	1.12	0.5	12	0.94	3,000	1.16	2.0	6.8	30	417
Percentages of N. R. C. Allowances Provided by 3 Servings* of Ovaltine in Milk	28%	46%	112%	42%	100%	63%	60%	97%	111%	57%	40%	Abundance

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The *multiple nutrient dietary food supplement*, Ovaltine in milk, is especially suited for transforming even poor diets to full nutritional adequacy. This is clearly shown by the data in the table above.

Note in particular the high percentages of the dietary allowances for nutrients and the relatively low percentage of the total calories furnished by the servings of Ovaltine in milk. Thus, without unduly increasing the caloric intake, Ovaltine in milk greatly increases the contribution of nutrient essentials. Enticing flavor and easy digestibility are other important features of this dietary supplement.



Two kinds, Plain and Sweet Chocolate Flavored. Serving for serving, they are virtually identical in nutritianal content.

Ovaltine

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confidence—whether it guides
the patient in his choice of physician
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Only a well-earned reputation
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To patient and physician alike,
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Corn-steep liquor from the manufacture of starch increases penicillin yield when it is added to the culture media of the *Penicillium* mold. Such discoveries, which led to acceleration of penicillin production, helped decide a war and now contribute vastly to world health in peace.

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The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

Harold M. Camp, EDITOR. Theodore R. Van Dellen, ASSOCIATE EDITOR.

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Vol. 97, No. 1 January, 1950

ANDY HALL — GENERAL PRACTITIONER OF THE YEAR

The 1949 winner of the American Medical Association's gold medal "for exceptional service by a general practitioner" is Andy Hall of Mt. Vernon, Illinois. Dr. Hall was elected to this signal honor by the House of Delegates at the Interim American Medical Association Session held in Washington, December 6-9. Dr. Hall had been persuaded to be nearby at a place where he could be found "in case lightning did strike", so within an hour after he was chosen as the outstanding general practitioner of the nation, he was literally "meeting the press". At one time he was being interviewed by 24 reporters, was being photographed by 13 camera-men, then appeared for movie and television news casts. Several recordings were made, one for the State Department's "Voice of America" program, then he appeared on television and on three nation-wide broadcasts.



The Big Moment! Ernest E. Irons, Chicago, hangs the gold medal around Andy Hall's neck signifying his selection as the outstanding general practitioner of 1949.

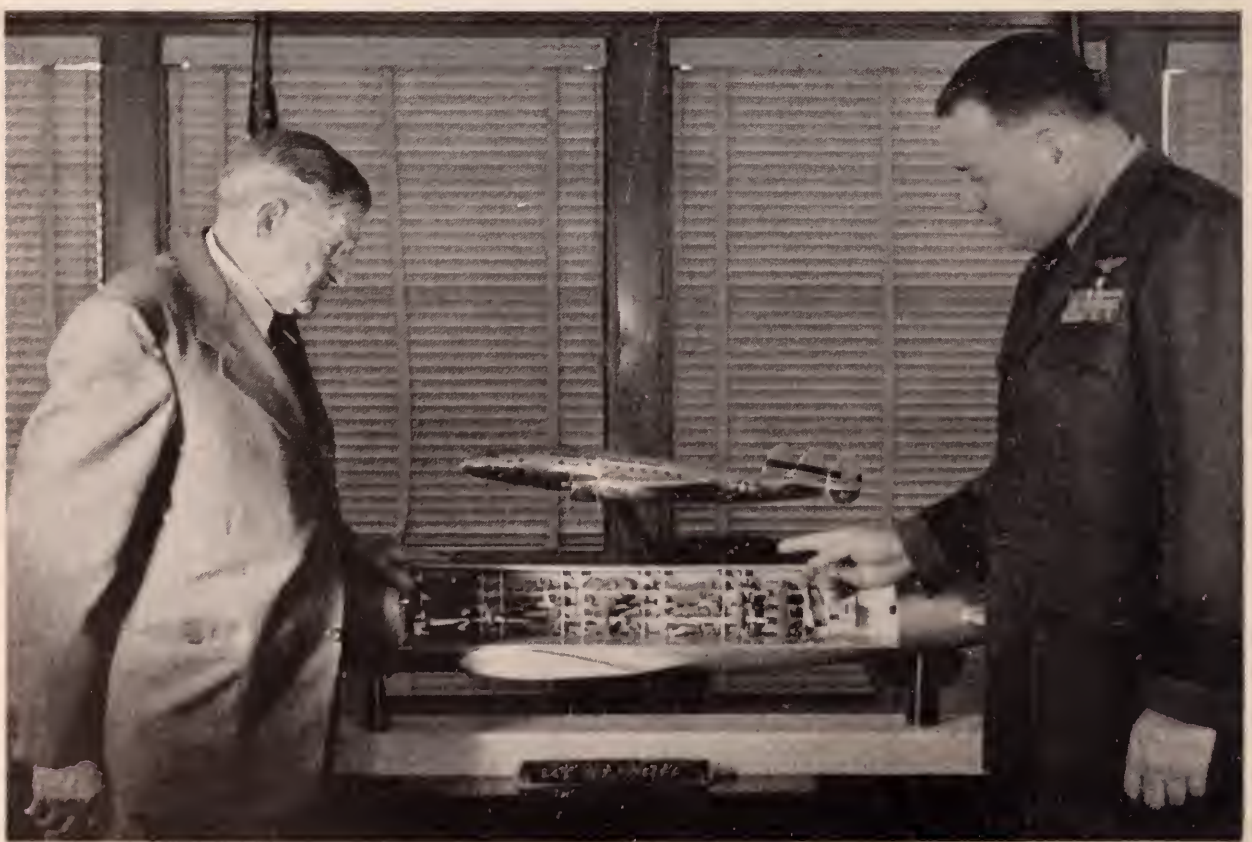
The gold medal was presented to Dr. Hall by Dr. Ernest E. Irons, Chicago, President of the American Medical Association, at 5:00 P. M., Tuesday, December 6, at the reception given in his honor. Thus, an honor was conferred upon an Illinois man by an Illinois man — the outstanding general practitioner of the United States, and the President of the American Medical Association, respectively. "Andy" made an appropriate extemporaneous talk which was thoroughly enjoyed by all those present.

The December issue of the Illinois Medical Journal published a picture of Dr. Hall and a story relative to his having been chosen at the state level as the outstanding general practitioner in Illinois, and the information was given that

(*Continued on page 4*)



After winning the award Andy Hall gives an extemporaneous talk to the assembled delegates. His modesty, sincerity and genial personality "won" his listeners easily. The scene is in the Statler Hotel.



Rear Adm. John P. Whitney, USN, Vice Commander, Military Air Transport Service, describes the workings of a model C-54 air evacuation plane in the office of his son, Col. Wilford F. Hall, Surgeon, MATS. The plane can airlift military patients more than 2000 miles in less time than it took Dr. Hall to reach some of his patients when he started practicing. Andy Hall's two other sons are also physicians.

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Original articles and membership correspondence to Dr. Harold M. Camp, Monmouth, Ill.

Society proceedings and news items and changes in the mailing list to Managing Editor, 30 N. Michigan Ave., Chicago 2, Illinois.

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he would be the candidate from the Illinois State Medical Society for the honor which he actually received December 6 in Washington.

Dr. Hall is the third physician who has been given the award for outstanding general practitioner, for in 1947 Dr. Archer Chester Sudan, Kremmling, Colorado was selected, and at the 1948 Interim Session the honor was given to Dr. William Lowry Pressly, Due West, South Carolina.

In accordance with the established regulations, the Board of Trustees select three from the list of candidates submitted to them by the state medical societies and these are reported to the House of Delegates and the ballot cast by this official group. Two candidates reported to the House of Delegates, in addition to Andy Hall, were Thomas Edward Rhine of Thornton, Arkansas, and Lyle Hare of Spearfish, South Dakota. On the first ballot Dr. Hall received 74 votes; then the second ballot was taken and Dr. Hall received 104 votes and Dr. Rhine 69. "Andy" was declared the winner.

The ten thousand members of the Illinois State Medical Society are thoroughly convinced that the House of Delegates made the proper selection and that Dr. Hall will do all that is expected of him during the coming year to show the nation that the family physician still occupies an important place in the provision of medical care in a nation which still believes in private enterprise, and that the physician-patient relationship is still cherished by the American people. Dr. Hall, long an important figure in his home community and a large area surrounding Mt. Vernon, now has nationwide recognition, and his life and professional achievements are those of a typical family physician.

DUES FOR THE AMERICAN MEDICAL ASSOCIATION

The House of Delegates of the American Medical Association voted to assess the members of the association $25.00 annual dues. For 102 years all the members of county and state medical societies have automatically become "members" of the American Medical Association. They have paid no dues to the parent organization for over a century.

Income from the Journal of the American Medical Association and from their other publications paid expenses, built their home office at 535 North Dearborn Street, Chicago, paid for the activities of the various Councils and Bureaus.

Because physicians paid no dues, many did not realize that they were "members" of the American Medical Association, and the difference between membership and Fellowship in the American Medical Association confused the issue in the minds of many physicians.

Now when dues are collected at the county level from each physician, he will pay:

(1) his county society dues
(2) his state society dues
(3) his American Medical Association dues.

The American Medical Association dues for the year 1950 will be $25.00. For this $25.00 the members of the American Medical Association will be contributing to the national educational campaign against compulsory health insurance.

But that is not all. Now physicians will be helping to support the various activities of the American Medical Association. The work of the Council on Medical Education and Hospitals affects the life of every physician in every community. The Council on Pharmacy and Chemistry passes on the drugs and equipment used in the office of every physician today. The Council on Foods and Nutrition protects the health and welfare of the people of this nation. Add to this list the Council on Physical Medicine and Rehabilitation, the Council on Medical Service, the Chemical Laboratory, the Bureau of Exhibits, the Judicial Council, The Bureau of Legal Medicine and Legislation, the Council on Industrial Health, the Council on National Emergency Medical Service, the Bureau of Medical Economic Research, the Bureau of Health Education, the Committee on Rural Health. The list is long and the work is outstanding in all fields.

Write this office for the 1949-1950 "Handbook" of the American Medical Association and familiarize yourself with the services given you as a member of the American Medical Association. *Learn to use these services at the individual and county levels.* The organization is yours, and it exists because of you and for you. Use it.

DETAILS TO BE WORKED OUT.

When anything new in the annals of any organization occurs there are problems to be faced, situations to be corrected, changes to be made. At this time many questions exist relative to the new membership on a due paying basis. May we cite some that arise in this state alone: What recognition will be given our Emeritus and Past Service members at the national level? What recognition will be given our Resident members at a national level? What constitutes the basis for Fellowship today? Which of our members are now eligible for Fellowship? Must a man be dropped from membership in his county and state society if his American Medical Association dues are unpaid? If so, when?

In anticipation of these differences throughout the 48 states, the House of Delegates of the American Medical Association placed the responsibility of adjustment upon the shoulders of the Board of Trustees of that organization. Rulings will be developed as situations are called to the attention of the Board. Actions will be taken and information disseminated as soon and as accurately as possible.

For the first time in 103 years, each physician in this nation will feel more keenly and realize more truly that he, from his individual standpoint, is a member of "organized medicine", at the county, the state, and the national level.

MEDICAL HISTORY AT THE COUNTY LEVEL

D. J. Davis M.D.*

An important part of the work of the Committee on Medical History consists in the encouragement and promotion of studies of the Medical History for each of the Counties of the State. Several such medical histories already have been written and others are now in the course of preparation.

It is the feeling of the Committee that most valuable contributions can be made by the individual societies by assembling all records that can be obtained in the way of life histories of local doctors, their careers and writings, items relating to local or regional medical societies, both official and non-official, medical events and monuments, plaques, etc., honoring physicians. Also data concerning doctors who may have been born or lived part of their lives in the County, later perhaps moving to other localities.

Histories based on data thus obtained are naturally to a high degree accurate and dependable for the medical history of the State can be little more than the sum total of the records of the lives and activities of its doctors. In time we then may have a collection of basic medical facts invaluable in the preparation of more general histories of medicine not only for the State of Illinois but for the entire United States. Similar local and county histories in England and elsewhere have been prepared in the past and have proved of great value for later and more general historic contributions.

*Permanent Historian, Illinois State Medical Society.

THE SIXTH NATIONAL CONFERENCE OF COUNTY MEDICAL OFFICERS

An outstanding feature of the Clinical Session of the American Medical Association was the Grass Roots Conference held on Thursday evening, December 8, 1949. It marked the sixth national meeting of the county medical society officers, and was attended by upwards of 150 in the Presidential Ballroom of the Hotel Statler, in Washington, D. C.

The meeting was called to order by the Chairman, Dr. A. M. Mitchell, of Terre Haute, Indiana who introduced Dr. Louis H. Bauer, Chairman of the Board of Trustees of the American Medical Association. Dr. Bauer welcomed the group with pointed remarks directing attention to the importance of the individual doctor in any given community.

Two men, Dr. A. L. Tuuri of Flint, Michigan, and Dr. Roy L. Scott of Buffalo, New York spoke of outstanding local achievements in their respective communities. Flint, Michigan, especially, has done a splendid piece of work in the community activity of their local doctors. They have developed programs for the care of the indigent, for coverage of the community during holidays, for night calls, and have especially emphasized in the Mott Children's Center the prophylactic care of children in communicable disease.

An interlude was produced by introducing Senator John McClellan of Arkansas. He, in company with other senators, visited in Europe recently, and has come to realize that the indi-

vidual must jealously safeguard those liberties so painfully won through the past ages. As he saw it, the great danger in America is that we will be inattentive to the loss of minor privileges. He said that we, as doctors "must not miss an opportunity to improve ourselves in a scientific way, and we must be continuously conscious of of America's heritage".

An outstanding part of the program was the address by George N. Craig, National Commander of the American Legion. He gave the receptive audience a tremendous boost by saying: We in the American Legion have problems in common with you of the American Medical Association. We like our American Way of Life. We have an investment in it. We believe in freedom of enterprise not only in industry, but in the professions as well. We in America represent 7% of the world's population and possess the greater part of the world's wealth. Under free enterprise in America you doctors have developed the lowest mortality rate, and now the American people are going to be asked to accept a system in use by the decadent nations of Europe. I say to you, the American Legion is opposed to this program. You as doctors represent a greater single group which has the opportunity and the respect of individual communities to carry forward American principles."

Next he directed attention with general remarks to the Hoover Commission noting that the conclusions of the commission were 18 in number, all designed to save tax money and give us greater efficiency in government. He was opposed however, to their recommendations suggesting dismembership of the Veterans Administration, but he nevertheless joined with us in every other phase designed to work out plans for economy in Government.

Dr. Thomas D. Dublin, Executive Director of the National Health Council, with headquarters in New York, dwelt at length on that organization's program in developing community health activities. Many times in the early days under inspiration of Dr. Haven Emmerson, he pointed out that the A.M.A. was the first to recognize the need for and to community leadership of community health programs.

For those communities just organizing such activity, he suggested the booklet, "The Stepping Stones for a Health Council" available through their headquarters.

The closing paper was given by the Past President of the Medical Society of the District of Columbia, Dr. Joseph Wall. He emphasized that doctors must act as leaders and not as camp followers in the matter of community health because the Federal Government would only too eagerly step into the picture and take over entirely.

To quote Doctor Wall: "Webster defines a "community" as "A body of persons having common rights, interests and privileges." It is our belief as a prognosticator that in the exercise of these attributes, vigorously maintained against the onslaught of ill advised interference, we shall continue to be able to call our country the land of the free, nor shall the birthright of freedom be sold for a mess of pottage brewed by a paternalistic government or its political potentates!"

This indeed touched the keynote for the welfare of the American people in the matter of community health leadership, namely the doctor *must* assume the key roll in any program, and only by this means can we really call this nation "The Land of the Free".

H. Kenneth Scatliff, M.D.,
Secretary, Chicago Medical Society

YOUR ANNUAL MEETING-SPRINGFIELD MAY 23, 24, 25

MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chmn., Hubert L. Allen, Emmet B. Bay, Edwin F. Baker, Carroll Birch, Thomas C. Browning, Roland R. Cross, James Graham, George Halperin, Edwin S. Hamilton, Ford K. Hick, Edwin F. Hirsch, May McDonald Milligan, Marie Wessels, Walter M. Whitaker, Holland Williamson.



Appraisal of Quality of Medical Care

To a bystander a discussion of quality of medical care might suggest a commodity like cotton or eggs available in bulk and of nearly uniform grade. Of course this is ridiculous since medical care is highly individual yet adjusted to broad social patterns. There is an abstract almost spiritual aspect to a service which places the welfare of the patient above all other considerations.

Every Dean of a medical school continuously appraises the quality of medical care delivered in his institution. Every department head does the same thing. Slowly such observations lead to readjustment of personnel. American medicine owes much to this slow method by which teaching institutions continually raise the standards of their own work and so set standards for their communties and the nation.

Each physician licensed to practice is qualified under the law. For care of our own families, however, we seek services of men whom we know and respect. A specialist certified in his field might be thought of as a source of superior medical service yet by becoming a specialist he has lost some skill, insight or familiarity with other branches of medicine. Further, no two specialists are identical in training experience, interests and in personality factors like health, vigor, optimism, imagination, etc. These differences are so great that all of us give serious thought to selection of a specialist best suited for our patient.

Experience in reviewing professional work done in hospitals has accumulated through the Council on Medical Education of the A.M.A., the American College of Surgeons, and the military and veterans hospitals. For "a registered hospital" the examiner visitor from the A.M.A. observes the physical plant, the medical staff, facilities for special services as pathology, the nursing service and the medical records. These requirements are easy for most hospitals. However, there is no rating as superior, satisfactory or fair. The examiners are physicians. Many former examiners have subsequently reached distinction in practice and administration of medical schools. No doubt the experience of studying the workings of many hospitals has proven valuable to them.

In World War II the Army and Navy untilized selected specialists as "consultants". These consultants visited hospitals in their area and became acquainted with chiefs of services and ward officers. By brief but intimate contact with the individual physician and his patients the consultant had a good chance to appraise the work done by the hospital and by the individual physician. This system required for its success careful selection of consultants with wide experience who were free from prejudice and who sincerely had in mind the good of the service. The system also required command authority to effect reassignment when necessary. In peace time a similar system of consultants is used by the Veterans Administration. All reports must, of course, be confidential and available only to proper administrators.

In the past three years the Health Insurance Plan (HIP) in New York, (personal communication from Dr. Geo. Baehr) has inaugurated group practice of about 26 groups. The board of governors has access to records of each group and so has a unique opportunity of a comparative survey of several groups. No doubt publications from Dr. Baehr and his associates will report some of their experience.

In short appraisal is possible if there is access to case records. Although this has been done with hospitals and even with clinics no one can imagine it for individual physicians even under a system of state medicine. There is clearly no way that the individual doctor can be stamped grade A, B, C, D etc. and no way can be imagined.

How then can a layman properly select a physician. Probably only a few physicians are available so the group he will study is small. Among this number personal liking, convenience and promptness may complete the selection. However, the best selection can be made by a layman almost as well as by another physician. This appraisal concerns the character of the doctor. When the layman finds a physician who combines availability and competence with intellectual honesty and humility he has found a superior physician. A convenient test is "when does he seek help from a consultant?" and another is "can he quickly make decisions which reduce his own income?"

A famous internist visiting in Chicago asked a younger colleague "If you were sick, to whom would you go for care?"

The younger man answered "Dr. M takes care of me".

"I never heard of him" commented the visitor."

"No and you may never hear of him. But I have known him for 15 years as absolutely straight and have seen him ask for help in difficult situations so that I know how he'd look after me if the situation became serious."

—*F.K.H.*

ANTIBIOTIC DRUG REPORTED EFFECTIVE FOR WHOOPING COUGH AND VENEREAL DISEASE

Aureomycin, the golden-colored antibiotic drug, is effective against whooping cough and lymphogranuloma venereum, a minor venereal disease, two Minneapolis doctors reported today.

Recent experimental and clinical studies indicate that aureomycin is effective in whooping cough, Drs. Wesley W. Spink and Ellard M. Yow of the University of Minnesota Medical School said in the Dec. 3 Journal of the American Medical Association.

The ulcerative venereal disease also responds favorably to treatment with aureomycin, they added.

Aureomycin appears to be of little or no value in chickenpox and mumps, however, the doctors found.

STATE DEPARTMENT OF PUBLIC HEALTH



Public Health — Our Mutual Responsibility

Roland R. Cross, M.D.,
Director Illinois Department of Public Health
Springfield

I welcome this opportunity to discuss the growing importance of the relationship between veterinary science and the sciences having to do with the health of man. For much too long a time in the history of human disease, the idea has prevailed that the human species is unique from all other members of the plant and animal kingdoms. For much too long a time the principles of ecology which deal with the mutual relations between organisms and their environment have been applied to only a limited extent in the attack on diseases common to both man and animals.

It is quite generally conceded (among men, that is) that man is the highest form of life on this planet and to him all else is as a part of his environment. Theoretically and apparently, he is in control. With the exception of a few men who, like Albert Schweitzer, have arrived at a philosophy of universal reverence for all living things, people for the most part, regard all else on this planet as quite secondary to the purposes and destiny of man — neither of which, I might add, seem to be very clearly defined. Therefore, with the idea of our homo-centric world, we can expect to find little interest in the well being of the animal population except as such a state of affairs bears directly on the interests of man.

So, despite the fact that the veterinarians and physicians are gathered here to discuss their mutual responsibilities in the control of disease, I believe it only fair to point out that the pitch of the discussions will center around measures of cooperation between veterinarians and public health physicians in the common problems attending human diseases in which there are animal reservoirs. This limitation to the direction of flow of ideas still defines an area much too large and complex and as yet too poorly understood in some of its branches to be exhausted in either this meeting or the foreseeable future.

Presented at the Joint Dinner Meeting of Veterinarians and Public Health Physicians, Springfield, Nov. 16, 1949.

From the earliest of recorded times, man has been dependent on animals to meet various needs in his pursuit of life on this planet. In this relationship, he recognized the existence of certain hazards although his limited scientific knowledge did not permit refined deductions. One of the oldest and best known demonstrations of his recognition of the importance of animal disease to public health is the ancient Hebrew law against the eating of pork. In all probability, Moses and his contemporaries did not see the trichina, but reached a deduction through the humble application of common sense, the procedure which now bears the dignified name epidemiology.

The history of neither human medicine nor veterinary medicine during the middle ages was very bright. Perhaps from our point of view, the 16th Century classic of Fracastorius "De Contagione" (on contagion) was the most important work until Snow, Budd, Panum and Murchison began their monumental studies in the 19th Century. These five men, widely separated in time and in particular nature of their subject matter, were able, through observation and careful thinking, to begin to break the popular attachment to the idea that epidemics and so-called visitations were a phenomenon of retribution superimposed by an exacting deity. They paved the way for Pasteur and Koch to extend the earlier contributions of Spallanzani and van Leeuwenhoek. Jenner, capitalizing on some earlier work and on his own astute observations, came forth with a procedure for selective and deliberate prevention of a human disease. This phenomenal development which occurred one hundred fifty years ago was dependent upon observations and deductions on a pox that affected both man and the cow. The immunological interrelationship has been one of the great blessings of our age. There is, I believe, still some debate as to whether smallpox and cow pox are identical diseases with different manifestations in virulence according to species of host.

From the earliest years of the 20th Century, our knowledge of microbiology has continued to grow. During this period the veterinarians have made a commendable showing in the control of anthrax, glanders, foot and mouth disease, and bovine tuberculosis. The low incidence of these diseases and the prevalence of safety measures against them has resulted in the general impression that these diseases are either extinct in the United States or are reduced to a point from which they can never again rise to importance. Unfortunately, these diseases are not gone like the dinosaurs, but are merely held in abeyance by a number of factors which have disturbed the host-parasite relationship. It must be made more generally known, by the physicians and veterinarians in public health, that this balance now prevailing is only an ephemeral state of affairs and may be upset for better or for worse by changes in present policies of man-made control.

Notwithstanding the commendable efforts of veterinary medicine, the organisms of rabies, brucellosis, listerellosis, actinomycosis, trichinosis, anthrax, mastitis, leptospirosis, and salmonellosis remain important threats to public health. Although the public health physicians have not been idle with regard to pursuing these community health problems, we have not made the inroads originally expected. Perhaps the limited success is attributable to the fact that up to this time, each of our two professions has been trying to solve these large ecological problems by means of a more or less restricted program of attack circumscribed by the tenets of the respective professions. For all practical purposes, the causative agents of these diseases do not differ from host to host; so the challenges they present should be attacked by a united effort. Perhaps there are other diseases which in time will manifest themselves as having a significant correlation between man and animals. Some of these may well be encephalomyelitis, Newcastle disease, poliomyelitis and influenza. We should be prepared to meet these existing and probable circumstances with a broad understanding of the principles of biology and a social consciousness and a spirit of cooperation that will know no limits.

To return to a fuller discussion on the major current challenges:

Brucellosis, which is primarily an animal disease may affect some twelve different animals and man. In both cattle and human beings, the infection is serious business. In the dairy industry, the economic losses are staggering and in man, treatment has up to this time been most discouraging. Pasteurization of milk, done according to the letter of the procedure, would prevent most of the human cases of the disease.

Unfortunately, not all milk sold is pasteurized and not all pasteurization is faultless. Therefore, both the treatment and the prevention of this disease in man leaves much to be desired. To aid in prevention, one of the techniques used by the health officer is the epidemiological investigation. In this procedure of follow-up on a case, the veterinarian is a logical participant in the search for the source and the mode of transmission of brucellosis. The veterinarian ideally should be an important part of the public health team working on those problems which are common to man and animals.

With regard to rabies, the medical control of this public health problem has not met the issue at its most vulnerable point. As many of you know, the old established public health measure of preventing human rabies through the Pasteur treatment, has critical short-comings. The most commendable solution to our mutual problem lies in mutual collaboration to control the disease in its sub-human reservoirs. By attaining certain levels of immunity to rabies in the dog, veterinary public health can virtually control this long-standing threat to the health of man. There is a big job to be done in educating the public on the importance of vaccination of dogs and the significance of the epizootics in wild animals.

We have observed that veterinary cooperation with public health officers and with physicians in the investigation and reporting of animal disease incidence of danger to man can provide the link between disease and health which otherwise is too often missing in the medical effort to protect the health of man. The veterinarian is the man who is trained in the science of diseases of animals; he is the man who can and should bring to public health education the information on animal diseases and the know-how of control. The veterinarian should share in the initial planning on public health programs aimed at control of human diseases which also have an animal host. The veterinarian by virtue of his background, his professional training and his professional contacts knows agricultural and rural bionomics and economics, and through this knowledge he can give valuable help in the organization and execution of programs designed not only for control and prevention of the animal diseases transmissible to man, but for the development and maintenance of practices contributory to animal health.

The veterinarian, equipped as he is, can lend added authority to the importance of public health programs in nutrition. He can contribute valuable aid toward keeping up the numbers and the quality of food-animals and their products.

I wish I had more knowledge about the specific areas of impingement of medical and veterinary sciences. It now seems perfectly reasonable that although there are only a few areas at this time well defined, there will be an expanding list of diseases which skip about through the animal kingdom. In some ways we have given up the animal-man liaison of disease; for we no longer are content to believe that warts come from toads, and there is such a thing as "animal magnetism," and that the taking of concoctions made from certain parts of animals will cure human ailments of these parts. We have departed from the conviction that the big bottle of Dr. X's magic remedy, once a fixture on the pantry shelf, can cure all nature of things in man and beast.

From these early ideas of man-animal relationship, the medical sciences have departed into a pattern of extreme and alarming specialization. In the health field, as in most fields of human endeavor there is now an earnest search for some over-all system whereby the advantages of specialization may be maintained while the ideal of cooperation is realized on the level of action.

In our respective professions, there is much highly technical information bearing on highly selected problems. We will, I hope, be able to meet jointly the growing number of problems wherein the two sciences come together at the level of action. I believe that with the logic of the scientific method and with the broad philosophy of ecology, we can fulfill at once the diversifying and uniting tasks imposed upon us by man's desire to control disease.

CORRESPONDENCE



WOMAN'S AUXILIARY PROGRAMS

Soon we will begin a new calendar year and just as business firms take inventory, we should take stock of our stewardship as members of the Woman's Auxiliary to the American Medical Association. Will our reports of our programs at the end of the year record growth; will we be able to report that we have met opportunities and responsibilities? We are needed now more than ever.

The following outline was mailed in August, 1949, to all county program chairmen: (Suggestions for Monthly Programs)

I. Twelve Point Program of the American Medical Association for the Advancement of Medicine and Public Health.
 1. A Federal Department of Health.
 2. Medical Research
 3. Voluntary Insurance
 4. Medical Care Authority with Consumer Representation
 5. New Facilities
 6. Public Health
 7. Mental Hygiene
 8. Health Education
 9. Chronic Diseases and the Aged
 10. Veterans' Medical Care
 11. Industrial Medicine and Accident Prevention
 12. Medical Education and Personnel

II. The A.M.A. — its history, function, work of the various councils, bureaus and other departments.

III. Study legislation — local, state and national, which affects health and medicine.
 1. Truman's Compulsory Health Insurance Plan
 2. Oscar R. Ewing's "The Nation's Health — a Ten Year Program"
 3. A.M.A.'s Answer to Compulsory Health Insurance

IV. Voluntary Prepayment Medical and Hospital Care plans
 1. Familiarize yourself with the plan used in your state

V. State Board of Health
 1. Study services available

VI. Local Health Department
 1. Study services available in city and county

VII. School health program

VIII. Rural Health Problems and their proposed solutions

IX. Nurse Recruitment
 1. Methods and information available

X. Radio Programs of the A.M.A. presented by the Bureau of Health Education

XI. Hygeia

The main objective of the Auxiliary has always been to extend the aims of the medical profession to all organizations which look to the advancement of health and health education. To interpret these aims to others *we* must be well informed ourselves.

Let us acquire a *speaking* knowledge as well as a *reading* knowledge. Let us continue to work and serve to the best of our ability. Many differences exist in the counties. Material that is excellent for one many not be suitable for another. We must learn the pattern of thought in our community. As families of physicians let us give to our communities skilled leadership to better health.

If you have not read the article, "What Every Doctor's Wife Should Know," by Mrs. Carl

Sibelsky in the October, 1949 issue, please do so now. It will be of much value to you. Let us aim to have every member interested and informed. Let us live up to this poem:

To what do you owe your success
Was asked a certain man?
Why, I just plan my work
And then work my plan.

(Mrs. J. M.) M. G. McDonnough
3578 Armitage Avenue
Chicago 47, Illinois

Program chairman Woman's Auxiliary to Illinois State Medical Society.

ANNOUNCEMENT OF VAN METER PRIZE AWARD

The American Goiter Association again offers the Van Meter Prize Award of Three Hundred Dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the annual meeting of the Association which will be held in Houston, Texas, March 9, 10 and 11, 1950, providing essays of sufficient merit are presented in competition.

The competing essays may cover either clinical or research investigations; should not exceed three thousand words in length; must be presented in English; and a typewritten double spaced copy in duplicate sent to the Corresponding Secretary, Dr. George C. Shivers, 100 East St. Vrain Street, Colorado Springs, Colorado, not later than January 15, 1950. The committee, who will review the manuscripts, is composed of men well qualified to judge the merits of the competing essays.

A place will be reserved on the program of the annual meeting for presentation of the Prize Award Essay by the author, if it is possible for him to attend. The essay will be published in the annual Proceedings of the Association.

MISSISSIPPI VALLEY ESSAY CONTEST

The tenth annual essay contest of the Mississippi Valley Medical Society will be held in 1950. The Society will offer a cash prize of $100.00, a gold medal, and a certificate of award for the best unpublished essay on any subject of general medical interest (including medical economics and education) and practical value to the general practitioner of medicine. Cerificates of merit may also be granted to the physicians whose essays are rated second and third best. Contestants must be members of the American Medical Association who are residents and citizens of the United States. The winner will be invited to present his contribution before the fifteenth annual meeting of the Society to be held in Springfield, Ill., Sept. 27, 28, 29, the Society reserving the exclusive right to first publish the essay in its official publication. All contributions shall be typewritten, submitted in five copies, not to exceed 5000 words, and must be received not later than May 1, 1950.

Further details may be secured from Harold Swanberg, M.D., Secretary, 209-224 W. C. U. Building, Quincy, Illinois.

STERILITY AWARD

The American Society for the Study of Sterility is offering an annual award of $1,000 known as the Otho Award for an essay on the result of some clinical or laboratory research pertinent to the field of sterility. Competition is open to those who are in clinical practice as well as to individuals whose work is restricted to research in basic fields of full time teaching positions. The prize essay will appear on the program of the forthcoming Meeting of the American Society for the Study of Sterility, which is to be held at the Sir Francis Drake Hotel in San Francisco on June 24 and 25, 1950.

Full particulars may be obtained from the Secretary, Dr. Walter W. Williams, 20 Magnolia Terrace, Springfield, Massachusetts. Essays must be in his hands by April 1, 1950.

CLINICS FOR CRIPPLED CHILDREN LISTED FOR FEBRUARY

Nineteen clinics for Illinois' physically handicapped children have been scheduled for next month by the University of Illinois Division of Services for Crippled Children. The Division will conduct 14 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medial social and nursing services. There will be 4 special clinics for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in cooperation

with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are ceritified Board members. Any private physeian may refer or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

The February clinics are:

February 1—Aurora, Copley Hospital
February 2—Litchfield, St. Francis Hospital
February 7—E. St. Louis, Christian Welfare
February 8—Hinsdale, Hinsdale Sanitarium
February 9—Springfield, St. John's Hospital
February 9—Glenview, Village Hall
February 9—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County
February 10—Chicago Heights (Rheumatic Fever), St. James Hospital
February 21—Carrollton, Baptist Church
February 21—Peoria, St. Francis Hospital
February 22—Springfield (Cerebral Palsy), Memorial Hospital
February 22—Chicago Heights, St. James Hospital
February 22—Vandalia, American Legion Home
February 23—Normal, Brokaw Hospital
February 23—Chester, St. John's Lutheran School
February 23—Rockford, St. Anthony's Hospital
February 24—Chicago Heights (Rheumatic Fever), St. James Hospital
February 28—Peoria, St. Francis Hospital
February 28—Effingham, (Rheumatic Fever), Douglas Township Building

In carrying on its program the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse associations, local social and welfare agencies, local chapters of the National Foundation for Infantile Paralysis and other interested groups.

"YOUR MENTAL HOSPITALS" INSTITUTIONS FOR THE MENTALLY DEFICIENT

There are two institutions in the State of Illinois for the care and treatment of mental defectives, namely, Lincoln State School and Colony and the Dixon State Hospital.

Illinois became aware of the problem of mental defectives in the early part of 1850, but it was not until 1865 that the Legislature passed an Act creating an institution for "feebleminded" children. In May of 1865, the first three patients were admitted to this institution, which was opened in the City of Jacksonville. This became the eighth institution for the care of such children in America, and the first one in the northwestern states. A year later, the population of the institution numbered nine, and by the third year there were 26 patients, filling to capacity the building which was leased.

More space was ordered and by 1869 there was 63 patients. In 1875, the institution was moved to Lincoln, Illinois, and by 1880 there were 296 patients. After only four years the institution was not large enough to answer the demands made upon it. A second institution, the Dixon State Hospital, at Dixon, Illinois, was established in 1918 to relieve some of the overload.

Population has gradually increased from three patients in the year of 1856 to 4700 mentally deficient patients at the Lincoln State School and Colony, and 3700 mentally deficient patients at the Dixon State Hospital, making a current grand total of 8700 patients. (The Dixon Institution also cares for and treats 1000 epileptics and post-encephalities.) Both of these institutions are overcrowded. It seems that no matter how large the institutions are, the demands made upon them create a serious overcrowding.

One frequently associates admissions of the mentally deficient to youth, but there is no age limit. The patients vary from infants a few days old to the aged, seveny-five to eigthy years old. Admissions are either voluntary or by court commitment, and are in accordance with the new Illinois Mental Deficieney Act, which became operative on October 1, 1949, and the procedures of which are outlined in last month's journal.

Due to the overcrowding, there is a waiting list for the admission of infants, children and adults. Admissions are authorized according to the urgency of the situation.

(Future articles will describe the care and treatment of the patients.)

G. A. Wiltrakis, M.D.
Deputy Director

ORIGINAL ARTICLES



Pulmonary Tuberculosis in Children Treated with Streptomycin

E. T. McEnery, M.D., H. C. Sweany, M.D., and G. C. Turner, M.D.
Chicago

The literature on the treatment of pulmonary tuberculosis with streptomycin during the past few years has been voluminous. No chemotherapeutic agent has been subjected to such close control experimentally and clinically, and it is the common feeling that streptomycin has accomplished unprecedented results in the treatment of certain types of tuberculosis. Most of the reports in children have been limited to cases of meningitis and miliary tuberculosis. Sanford reported four cases of pulmonary tuberculosis treated with good results in 1947. Because of the limited work on childhood tuberculosis we felt that a larger series of cases should be studied and reported.

In the beginning of this work we considered the advisability of observing a control group. Since we have had the opportunity, however, of observing a large group of cases of tuberculosis in children over a 15-year period, it was felt that we could use the later cases as controls and give the benefit of the drug to all the severely ill, open and active cases in our hospital.

It is a clinical fact that many primary lesions in children, after a long and tedious course of treatment of one to two years or longer, may reach a stage where they are considered arrested. The plan of treatment during these fifteen years was rest in bed, good nursing care and nutritious diet. Some of the cases treated did not get better. A disseminated pulmonary tuberculosis

From the Clinical and Research Departments of the City of Chicago Municipal Tuberculosis Sanitarium.

This investigation was supported (in part) by a Research Grant from the Division of Research Grants and Fellowships of The National Institutes of Health, U.S. Public Health Service.

Presented at the Annual Meeting, Ill. State Med. Soc., Chicago, May 18, 1949.

developed and the child died. There was no way to tell when one case would recover and when another would progress to a fatal outcome.

Our work was hampered at first by the cost of the drug, but by a special order by the Board of The Chicago Municipal Tuberculosis Sanitarium in November, 1947 all streptomycin was furnished free of charge to all patients in whom the Medical Board considered the treatment indicated.

Plan of Study.—All of these cases were under observation for periods of from two to thirty-six months. A complete history was taken on each child with special emphasis on contact with a person with tuberculosis. We were certain that all the criteria for a diagnosis of an active pulmonary process were present before any streptomycin was started. To be definitely unbiased about any case, each child's history was reviewed by a "Streptomycin Board" consisting of three clinicians, one thoracic surgeon and one pathologist. It was its function to evaluate each case and suggest a plan of streptomycin therapy. The Board would also suggest when the record should be returned for review and evaluation. Ten cases were rejected by the Board because they were not considered suitable cases. These children had progressed satisfactorily under conservative treatment, and it was felt that streptomycin therapy would add nothing to their progress.

All cases had positive sputums from either gastric washings or bronchoscopic aspirations. These positive sputums were confirmed with cultures and guinea pig inoculations. They all had positive Mantoux tests. Roentgenograms were all positive for lung infiltration, usually of an advanced degree.

During the course of treatment each case was very closely observed, both clinically and roentgenologically. X-rays were taken once a month during active use of the drug and every two to three months after stopping streptomycin treatment. All the children were kept on essentially the same rest program. Blood counts and sedimentation rates were taken at least once a month. After streptomycin therapy was stopped, gastric and bronchoscopic washings and cultures were made on each case. Before a child could be considered for discharge we required two negative gastric washings and one negative bronchoscopic aspiration.

Type of Tuberculosis.—Of the twenty-five cases treated, twenty-two were classified as having a progressive primary lesion. This type of lesion is of relatively recent origin, sometimes demonstrated on physical examination by impaired resonance and suppressed breath sounds but more than likely not revealing any change. The x-rays showed a soft infiltrative process, usually extending out from the hilum to the periphery of the lung, with some enlargement of the hilar shadows.

Three cases were classified as Far Advanced Adult Type of Pulmonary Tuberculosis, with activity and large cavities. These children had failed to respond to bed rest and pneumothorax regime and had been on a downward course for a period of two years.

Age of the Patients.—In the Progressive Primary Lesions the ages varied from eight months to fifteen years.

In the Far Advanced Adult Type of Pulmonary Tuberculosis the patients were eleven, twelve and thirteen years respectively.

Of the total twenty-five cases, eighteen were colored and seven were white.

There were eleven males and fourteen females.

Dosage of the Drug.—In the beginning of this study the majority of the cases received 0.5 gms. in divided doses, twice daily. This has now been reduced to 0.3 gm. once daily for all children.

Duration of Treatment.—Sixteen cases were placed on the drug for 120 days. Nine cases were treated for 60 days.

Blood Levels of the Drug.—Blood levels have not been taken as a routine measure, but spot checking on cases has shown blood levels in the morning before injection to vary from 0.5 micrograms to 1.0 microgram per c.c. Six hours after administration of 0.3 gm. of streptomycin the blood level had risen to 6.0 to 8.0 micrograms per c.c. of blood, a good therapeutic level.

Toxic Manifestations of the Drug.—Using the smaller dosage, namely 0.5 gm. once daily, toxic reactions have not been present. No auditory or vestibular disturbance has been noted during active therapy or after the drug was stopped. Audiometer and caloric tests were not found feasible. Simple clinical tests for hearing and equilibrium were found to be normal. Skin reactions have not been present although one patient who had been receiving 2 grams of streptomycin daily for ten days previous to admis-

Table 1

PROGRESSIVE PRIMARY PULMONARY LESIONS

AGE IN YEARS

0-1	1-2	2-3	3-4	4-6	6-8	8-10	10-12	12-15	Total
2	3	5*	2**	2	2	1	3	2	22

*W. B. Died seven months after streptomycin of tuberculosis meningitis

**M. W. Died one year after streptomycin — surgical death

ADULT TYPE PULMONARY LESION

									Total
							2	1†	3

†C. W. Died six months after streptomycin

sion to our hospital had a diffuse erythematous rash all over his body which persisted for five days after the drug was stopped. He was started on 0.1 gm. daily after the rash disappeared and no further trouble was experienced.

Urinary Findings.—A trace of albumin has persisted in about 65% of these cases while under active drug therapy, but this has disappeared when the drug was stopped. This was felt to be due to a transient irritation of the kidney.

Response to the Drug.—The clinical response has been the same in all cases. This has occurred in a week to ten days. The following reactions have been noted consistently: A drop in temperature, improvement in appetite, change in disposition, and lessened irritability. Expectoration is a negligible factor in this type of case. The psychological factor, which greatly influences the above observations in treating adults, played no role in the treatment of these children. As far as we have been able to determine, no injurious effect was incurred except when large doses were used, as in the case of the child who received 2 grams of the drug daily for ten days before admission and developed a generalized rash.

Physical Findings.—In the Progressive Primary cases, even though the general well-being of the patient improved in the very short period of seven to ten days, it was at least one month before any changes were noted in the physical examination which then revealed improved resonance, better transmission of breath sounds, and fewer rales.

In the Adult type, the physical findings remained about the same. In two of the cases the findings became more marked. One child became decidedly worse and expired, seven months after streptomycin therapy had been completed.

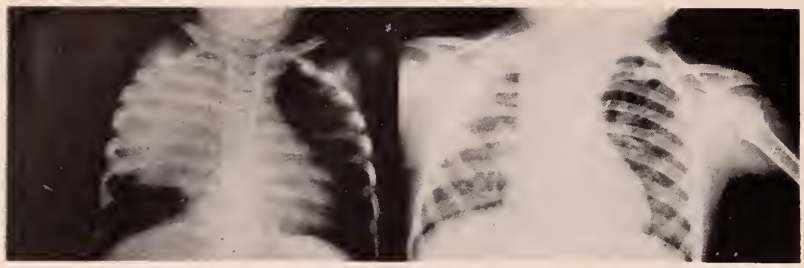
Roentgenograms.—The changes that were demonstrated in the monthly films were very slow to make their appearance. It was usually three months before a definite change could be noted. These changes were slow but it has been interesting to note that improvement has continued, eight months after stopping the drug.

CASE HISTORIES

Case 1. K.J., white female, age 2 years, contact unknown. Developed a fever in November, 1947 with a slight cough, loss of appetite, irritability and easy fatigue. Admitted to The Children's Memorial Hospital in January, 1948. X-ray revealed an exu-



Case 1. K.J., White, female, age 2 yrs. x-ray (left) Feb. 1948 (right) Feb. 1949.



Case 2. R.R. Colored, female, age 2 yrs. x-ray (left) Nov. 1947 (right) Mar. 1949.

dative lesion at the right base. Gastric washings positive for tubercle bacilli. She was transferred to The Municipal Tuberculosis Sanitarium in April, 1948 and was started on streptomycin, 0.3 gm. once daily. Laboratory findings: RBC 4,690,000; WBC 7,500; sedimentation rate 15 mm. August, 1948; October sedimentation rate 2 mm. X-ray showed gradual clearing of process at right base. Physical findings have improved, transmission of breath sounds normal and no rales present. Gastric washings have been negative for tubercle bacilli. The last x-ray in March, 1949 shows right base cleared.

Case 2. R.R., colored female, age 2 years, contact cousin. In July, 1947 developed a cough and fever; taken to Cook County Hospital. Positive Mantoux; bronchoscopic aspiration positive for tubercle bacilli. Developed a pleural fistula. In September, 1947 transferred to The Municipal Tuberculosis Sanitarium. Physical examination revealed a very poorly nourished colored child with marked suppression of breath sounds over whole right side of chest and a discharging sinus in axillary line. Laboratory findings: RBC 3,800,000; WBC 6,700; sedimentation rate 25 mm. Condition grave. In November, 1947 placed on streptomycin 0.5 gm. daily. The temperature dropped to normal in three days, her appetite improved, and her irritability lessened. In ten days she was a different patient. The x-rays showed little improvement for at least three months and then began to show a clearing; this has continued even though she has not had any therapy for over a year. She left the sanitarium in April, 1948 and has been followed as an outpatient since.

Case 3. M.G., colored male, age 2½ years, contact, sister. Admitted to The Municipal Sanitarium in February, 1948. History of cough and temperature; contact with sister who is in sanitarium. Physical examination: Fairly well nourished colored boy; resonance impaired a left apex with suppression of breath sounds. No rales. Marked reaction to Mantoux test. Started on streptomycin 0.3 gm. daily for 60 days; received a total of 24 gm. Left sanitarium October, 1948; followed in the Outpatient Department. Gaining in weight and doing well at home. Last x-ray taken in March, 1949.

Case 4. W. B., a three year old white male. This child was admitted to The Children's Memorial Hospital with what was thought to be a terminal condition, having far advanced lung disease and draining neck sinuses. Physical examination showed a very ill child, marked emaciation and extensive pulmonary involvement. Impaired resonance and breath sounds at both right and left apices with marked involvement at the left base. Rales and amphoric breathing at both apices. Gastric washings positive for tubercle bacilli. Laboratory findings: RBC 3,759,000; WBC 8,500; sedimentation rate 29 mm. He was started on large doses of streptomycin, ¼ gm. four times daily. After ten days he was transferred to The Municipal Tuberculosis Sanitarium. On admission he was very toxic; a diffuse erythematous rash covered his body. The pulmonary findings seemed to have progressed. It was the feeling that this boy would only survive a few days. He was given intravenous fluids and blood transfusions. Because of the rash the drug was stopped. After five days the rash faded and he was started back on streptomycin 0.1 gm. daily. In two weeks his temperature returned to normal and his whole picture began to improve. The x-rays changed very slowly and the physical findings made little progress. The sinuses in his neck gradually closed; he gained in weight and was up and around a little each day. His course of treatment had been 120 days. In November, five months after stopping the drugs, he became nauseated and developed other signs of meningitis from which he expired within two weeks. This child was one of the Primary Progressive Lesions whose gastric washings remained positive after streptomycin therapy had been stopped.

Necropsy findings (Dr. H. Sweany): Death was caused by a basal meningitis which was not unusual. It developed from a streptomycin-resistant strain of tubercle bacilli which was found to have resistance to 10 micrograms on three different occasions. The lungs were remarkable, in that they presented marked healing in a far advanced and ulcerative tuberculosis. There was an excavation of most of the middle lobe with a residue of calcified, caseous material around the margins and numerous granular concretions in all the interstices of the cavity. The calcified foci appeared to be greater in age than ever seen before in a four year old child. The cavity generally had a smooth wall, some of which was becoming relined with epithelium. Another large cavity and more recent was present in the right upper lobe which had contracted to about a third of its former size. There was practically no pyogenic layer left and much fibrosis was present in the wall of the cavity. In the left upper lobe there were many tubercles heavily encapsulated and calcified. The complete autopsy findings showed that considerable healing changes had taken place before the meningitis

caused his death. We felt that these changes were due to the effect of streptomycin.

Case 5. V. W., age 12, colored female, contact unknown. Child was apparently well until June, 1947. Developed a cough and felt tired. She was taken to The Municipal Tuberculosis Sanitarium Dispensary where her sputum was examined and found positive for tubercle bacilli. Child was admitted to Sanitarium in July, 1947. Laboratory findings: RBC 4,220,000; WBC 6,650; sedimentation rate 19mm. Physical examination revealed a very thin, toxic girl with cavities at both right apex and left base. For three months bed rest did not change the progress of the disease. In November, 1947 she was started on streptomycin, 0.5 gm. once daily for 120 days. Within a week her well-being improved, her temperature dropped to normal, her appetite picked up, and she appeared less toxic and gained in weight. The x-ray did not improve and her physical findings became worse. She has continued a downhill course after stopping streptomycin and is now in a terminal stage.

DISCUSSION

Many of the children with Progressive Pulmonary Lesions have been sent home. They have been followed closely at monthly intervals. A few of these children, previous to streptomycin therapy, had been confined to the hospital for a period of two years. They had been unable to be discharged because of repeated positive sputum for tubercle bacilli. One child in addition to his pulmonary pathology had a tuberculosis of the elbow joint with a discharging sinus. This had been operated and casts had been on and off for two years. Two weeks after streptomycin was started the sinus closed and has remained closed up to the present, fifteen months after streptomycin was stopped.

From our experience with this series, we are hopeful that we may be able to treat a larger number of children and shorten their stay in the hospital. In all but four of the twenty-five patients we have been able to convert the sputum to negative. Our criteria for discharge from the sanitarium consist of two consecutive negative gastric washings and one bronchoscopic aspiration negative on both smear and culture. Two of the remaining positive cases have been of the Adult Type and two of the Progressive Primary. These four cases have shown slight resistance to streptomycin on sensitivity tests.

The dosage of the drug has been low, which we feel was the reason for not having any toxic reactions. Even though the dosage has been low we have demonstrated a good clinical response. Single doses have lessened the presence of nodules, which at times caused a great deal of discomfort to the children.

We are not of the opinion that every primary tuberculosis lesion should be treated with streptomycin. If the case has been under observation for a sufficiently long enough time to note that the lesion is not progressing satisfactorily under conservative treatment we feel that streptomycin should be used. This drug does something to the tuberculous lesion which we have never seen before. Clinically there is an immediate improvement in the well-being of the child. He is less irritable, the temperature drops to normal, the appetite improves, and the child gains in weight. The physical findings are slow to improve, at the earliest two months, while the x-ray changes may take three months.

On the basis of clinical, roentgenologic and bacteriologic observations it was clearly demonstrated that the degree of the therapeutic efficiency of streptomycin is definitely related to the character of the pulmonary lesion. Improvement occurred much more frequently in patients with early disease than with those having chronic lesions.

We feel strongly that streptomycin should be added to the armamentarium of physicians for the treatment of Progressive Primary Tuberculous Lesions.

SUMMARY AND CONCLUSIONS

The results of streptomycin treatment in Progressive Primary Tuberculosis may be summarized as follows:

1. It uniformly lessened and in most cases obliterated the toxic manifestations in 25 patients treated. The improvement usually became apparent within a few days after the treatment was begun.

2. It reversed the general downward clinical course of the disease.

3. The physical findings improved and were clearly demonstrable in 30 to 60 days after treatment was begun.

4. The decreased roentgenologic findings followed the improvement in the clinical picture.

5. Sputum conversion was completed in four to five months in 89% of progressive primary lesions.

6. The hospital stay was uniformly reduced roughly from two to three years to six to eight months' time.

Adult Type of Pulmonary Tuberculosis—This group of three cases was too small to be statistically significant, but from our observations of these children it was felt that the results were similar to cases of chronic pulmonary tuberculosis in adults, treated with streptomycin in this and other institutions. Two of these cases were only temporarily improved. One of these died and the other is now in a terminal stage. The third child has had a left pneumonectomy and is making satisfactory progress, three months after surgery.

In spite of the fact, however, that streptomycin has shown great promise especially in Progressive Primary Tuberculosis in children it should not be considered a cure-all; its use is still in the experimental stage and larger numbers will have to be observed over a longer period of time before an exact and complete evaluation of its worth in this field can be given.

Acute Intestinal Obstruction

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The success in treatment of acute intestinal obstruction depends largely upon *early diagnosis, skillful management* of the case, and an appreciation of the fact that it is just as important to *treat the effects of the blockage* as the cause.

The mortality from intestinal obstruction has been reduced markedly in recent years, but it still ranges from 18 to 50 per cent.

TYPES

The main types of intestinal obstruction from the standpoint of causative factors are:

I. *Mechanical,* where the intestinal contents are prevented from passing along the bowel by an actual obstruction of the lumen of the gut. This type of obstruction may be subdivided into

A. *Simple obstruction* where there is a complete blockage to the passage of intestinal contents. There are three main types of simple obstruction; namely,

1. *High small gut obstruction* characterized by profuse vomiting and loss of fluids, and
2. *Low small gut obstruction* characterized by progressive intestinal distension which causes severe local effects in the obstructed bowel.
3. *Large gut obstruction* where the acute stage is never so dramatic as in small gut obstruction partly because the colon has time to adapt itself to the stasis and is rarely complete.

B. *Strangulation* where there is besides the obstruction to the lumen, an obstruction to the blood supply of the obstructed bowel.

II. *Paralytic or Nervous* where the intestinal contents do not pass along the bowel because the intestinal muscle cannot provide the necessary propelling force. The gut wall is not truly paralyzed but its activity appears to be inhibited by an overactive sympathetic nervous system.

III. *Vascular,* either

A. *Arterial by embolism* (rarely thrombosis) from

1. The heart in endocarditis
2. The lungs in pyemia, or
3. The arteries in atheroma.

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B. *Venous by thrombosis* from

1. Portal obstruction due to fibrosis, obliteration, or compression of the portal vein
2. Peripheral sepsis from septic thrombosis in acute appendicitis, hemorrhoids, etc.

In this paper mechanical obstruction only will be stressed.

SYMPTOMS AND SIGNS

The cardinal symptoms and signs of acute intestinal obstruction are:

1. *Pain* which comes on abruptly, colicky and lasts from one to three minutes. It increases in intensity often to agonizing seizure and ceases as abruptly as it began only to recur again and again. The physician should place a stethoscope upon the abdomen and if the pain is due to intestinal obstruction he will hear a metallic, bell like sound or a bubbling, gurgling sound associated with rushing bowel sounds during the height of the pain episode. Pain and increased intestinal sounds appearing at the same time are pathognomonic findings of intestinal obstruction. Pain plus localized tenderness indicate strangulation of the intestine.
2. *Nausea and vomiting* are generally early symptoms in small bowel obstruction. The higher the obstruction, the earlier, more severe, copious and intractable is the vomiting. Feculant vomiting occurs early in low small bowel obstruction. Patients with large bowel obstructions rarely vomit and if they do it occurs late in the disease.
3. *Obstipation* is usually classed as one of the important symptoms of obstruction; however, it is a late and unreliable symptom of obstruction. A patient may be constipated for a week or more and yet suffer from no signs or symptoms of obstruction. Another patient with a strangulated loop of small intestine may have a free action of the bowel some hours previously. In Richter's hernia and in intussusception there may be normal bowel movements; again in acute obstruction of the left colon due to a stenosing carcinoma, an enema may work out the contents of the intestine distal to the stoppage. A two quart diagnostic enema is an aid in the diagnosis of large bowel obstruction since the large intestine can usually retain two quarts of fluid plus its intestinal contents. If the bowel cannot take the two quarts, this speaks for a large bowel lesion. Another aid in diagnosing whether the obstruction is complete or incomplete is to give one or two ounces of mineral oil by mouth and then inspecting the enema returns for oil droplets a few hours later. If oil droplets are found it speaks for an incomplete obstruction, while if no oil returns in repeated enemas a complete obstruction is suspected. A patient with complete intestinal obstruction passes neither flatus or feces per rectum.
4. *Distension or tympanites* is generally present in cases of bowel obstruction. The degree of distension depends upon the site of the blockage and upon the "time factor". In high small gut obstruction (jejunum) the stomach distends with gas and accumulated secretions, and the epigastric region becomes prominent. In low small gut obstructions (ileum) the central portion of the abdomen is moderately distended and in large gut obstructions (distal colon) there is considerable universal distension and marked bulging in the flanks. Percussion reveals no shifting dullness in the flanks.

In determining distension we utilize the anatomic relationship of the umbilicus to the xiphoid process. The normal abdomen is scaphoid and not flat, hence the umbilicus is normally placed below a line drawn from the xiphoid to the pubic tubercle.

The abdomen is called flat when the umbilicus is on a level with the xiphoid. The abdomen is described as *distended* when the umbilicus is above the xiphoid. When the abdomen is flat or distended some pathological condition is suspected. A differential diagnosis of the seven "F's", as given by P. Thorek is indicated when such an abnormally placed umbilicus is found. The seven "F's" are, namely, fat, feces, fluid, flatus, fetus, fibroids and "Ph"antom tumors. In most cases these have been found to be the underlying cause of the distension. If the circumference of the abdomen is measured at the site of the umbilicus when the patient is first seen and then at hourly intervals, and index as to the degree of distension can be ascertained and treatment instituted, many times with gratifying results.

5. *Tenderness* is of the utmost importance in differentiating simple from strangulated obstruction. In simple obstruction there will be little, if any, tenderness. If the bowel is strangulated, there will be definite peritoneal irritation from blood and infection transmitted from the bowel and this irritation will signify itself by a definite tenderness and spasm of the abdomnial wall on palpation. Pain plus localized tenderness indicate strangulation of the intestine. A classical example of this is a strangulated inguinal hernia.

Diagnosis

The diagnosis is based upon the history, the above signs and symptoms, x-ray, laboratory and rectal findings. Patients with intestinal obstruction, who have had previous surgery, have small bowel obstructions until proved otherwise. Ninety per cent of simple acute large bowel, obstructions are due to either carcinoma, diverticulitis or fecal impaction. Large bowel obstruction resulting from postoperative adhesions is a rarity.

Laboratory data reveals a high hemoglobin and red blood count due to dehydration, as well as a high white blood count. The urine may be scanty, of high concentration and may show albumin and casts. Low chlorides, increased carbon dioxide combining power and increased nonprotein nitrogen generally are found only in high bowel obstruction.

X-ray examination by means of a "scout" film of the abdomen in the supine position preferably when the patient first enters the hospital and repeated every six to twelve hours is very essential in establishing a diagnosis. This immediately reveals the bowel pattern and also determines whether or not flatus is present in the hollow of the sacrum. If the flatus over the hollow of the sacrum is absent following repeated enemas the obstruction is considered to be complete but if flatus continues to come down and appears over the sacral region the obstruction is considered to be incomplete. At an early stage in obstructive lesions of the large bowel the flat plate may show the cecum to be blown out with gas and may show gas distending the colon, ending abrutptly at the site of obstruction, and appears as a horseshoe or inverted "U". The obstruction is usually in the rectosigmoid. A barium enema will usually locate a descending or sigmoid colon lesion. In paralytic ileus the large as well as the small bowel is distended.

Visible gas in distended loops of small intestine in adults is synonymous with intestinal obstruction. At a later stage the typical stepladder like formation of distended loops of small intestine that will often show haustral markings are seen. These are frequently confused with loops of the colon. Fluid levels can often be seen in such an x-ray examination. An obstructing gall stone in the lumen of the small intestine may be shown.

Rectal examination enables the surgeon to feel the pelvic viscera and perhaps to find distended loops or tumors of the lower ileum or pelvic colon, to discover local growths and strictures low down in the bowel and to ascertain if the rectum is ballooned, filled with blood and slime or firmly impacted with fecal concretions.

TREATMENT

The remedial procedures and agents which have proven to be of the greatest value in the treatment of bowel obstruction are:

1. *Decompression* by a Levin, Miller-Abbott or Rawson-Abbott tube connected to a Wangensteen suction apparatus. This will in some instances convert an acute obstruction into a chronic one. The tube should be inserted immediately upon admission to the hospital and should remain during and several days following surgery or until normal pertistaltic sounds are heard.

2. *Correction of dehydration and fluid imbalance* by intravenous administration of (a) saline, (b) glucose in saline and (c) Ringer's or Hartmann's solution. These likewise should be started immediately so as to prepare the patient for surgery if necessary. A urinary output of 1,000 cc. or more each 24 hours is desirable.

3. *Maintain the protein balance* by the administration of (a) plasma or serum transfusions, (b) intravenous amino acids and (c) blood transfusions if the obstruction is associated with blood loss. Healing of the suture lines, if surgery is performed, is augmented by correction of hypoproteinemia as well as the hyperchloremia.

4. *Replacement of loss of Vitamins B and C* by intravenous or intramuscular injections. Vitamin C is very essential for wound healing.

5. *Administration of chemotherapeutic agents* as the sulfa drugs, and the *antibiotics* as penicillin, streptomycin and chloromycetin both be-

fore and after surgery has helped to decrease the mortality in intestinal obstruction.

6. *Surgical intervention* is imperative in strangulated lesions as soon as the patient's condition permits. If this is accomplished within the first 24 hours, the mortality is greatly reduced. When in doubt as to the location of the obstructing lesion the abdomen is best explored through a right paramedian para-umbilical incision, one third of the incision being above and two-thirds below the umbilicus. The incision can then be extended if necessary, upward or downward. A blood-tinged peritoneal exudate indicates strangulation which most commonly is in the small intestine. Collapsed ileum near the cecum indicates small bowel obstruction, while a distended cecum indicates obstruction in the colon. The hernial orifices should first be explored and if found negative a very careful exploration of the small intestine from the cecum upward will usually find the obstructing lesion. When found the surgeon must determine whether the strangulated intestine is viable and can be returned to the abdominal cavity or whether it will have to be resected or exteriorized. One of the simplest procedures to determine the viability of a strangulated piece of intestine is to flick it with the finger after warm moist applications have been applied. If peristaltic waves occur the intestine is viable and can be returned into the abdominal cavity. Other methods of determining viability are to have the patient breathe pure oxygen and observe the color of the bowel. The procaine test, where 10 cc. of two per cent procaine is injected locally around the mesentery, releases the vasospasm and hyperemia results. The fluorescein test has been described where 5 cc. of five per cent fluorescein solution is injected intravenously, the operating room darkened, and the bowel observed under ultraviolet light. A golden green color indicates viable intestine.

If the intestine is not viable and not too distended and thin, a resection with a laterial anastomosis can be performed. Exteriorization alone, or exteriorization with an entero-enterostomy are other alternatives. Ileostomy, in my opinion and experience, is not a good procedure.

Complete nonstrangulated large bowel lesions require immediate colostomy in order to release the intracolonic pressure. Opinions differ as to whether a cecostomy or a tranverse colostomy is the operation of choice. In my opinion there is a place for both, but in recent years I have been leaning toward tranverse colostomies.

SUMMARY AND CONCLUSIONS

1. The types, symptoms and signs, diagnosis and treatment of acute intestinal obstruction have been discussed.

2. Diagnosis and treatment within the first 24 hours will markedly reduce the mortality in intestinal obstruction.

3. Abdominal auscultation will aid in the diagnosis.

4. Measure the circumference of the abdomen on a level with the umbilicus every few hours to determine if distension is increasing.

5. Get a flat x-ray plate of the abdomen (scout film) every 6-12 hours to determine whether large or small bowel obstruction is present.

6. Give mineral oil by mouth and examine repeated enema washings for oil to determine if the obstruction is complete or incomplete.

7. A two quart enema will help determine if the obstruction is in the large intestine.

8. Percussion of the flanks for shifting dullness will determine whether air of fluid is present.

9. Rectal examination will locate low lying growths and strictures.

10. A proctoscopic examination may reveal a lower bowel lesion which may be overlooked by x-ray examination.

11. Barium enemas may locate the obstructing lesion higher up in the colon.

12. Early surgical intervention is indicated in strangulated and obstructive lesions as soon as the patient is prepared.

13. Examine hernial orifices for obstruced bowel.

14. Do open rather than closed intestinal anastomosis.

15. Do lateral anastomosis preferably to end-to-end.

16. Do not anastomose greatly distended bowel.

17. Handle greatly distended or other bowel gently, since rupture of the small intestine can occur.

18. Determine viability of bowel before returning it into the abdomen.

19. Do not give barium by mouth in suspected complete intestinal obstruction.

20. Do not do an enterostomy unless it is a last resort.

30 North Michigan Avenue

How Does Malaria Interest the Practitioner in Illinois?

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When I was asked to talk on malaria before the Illinois State Medical Society, I felt that many of you would wonder why a disease seemingly foreign to the practices of most of you should be chosen as the topic for discussion, especially at a time when the recurrent cases of World War II are disappearing. Indeed endemic malaria in the United States is disappearing. I do not propose to go into any discussion of why this reduction has occurred because over the past decade many factors have operated toward this end, improved economic status, improved nutrition, increased medication, more screened houses, more spraying in general against insect pests (lately DDT in particular), as well as the development of new and better drugs. Yet I hope to show you why malaria, and, with it as an example, some other diseases seemingly as remote are still important to you.

Malaria has been reported in Illinois for many years. Recently the figures have been increased by cases of imported malaria in returning veterans of World War II. In the years 1941 and 1942, 219 cases were reported in Illinois[1]. I choose these two years because the increase in more recent years from returning veterans, 565 cases in 1946, for example, was not felt then and the earlier figures give a better picture of the normal situation. To give you some idea of the incidence of malaria as compared with seemingly more familiar diseases, in those years more cases of malaria were reported in Illinois than cases of each of the following: infectious encephalitis, meningococcic meningitis, paratyphoid fever, smallpox, tularemia, or spotted fever. And imported malaria will be on the increase! About two months ago the Army bomber, Lucky Lady II, flew around the world in thirty hours, passing every area in the world and every known disease hazard. Remote areas are less remote now. Almost daily I see patients who, six to twelve hours before, were in areas where yellow fever, dysenteries, and malaria are common. No longer do these people pass their incubation periods on the boats bringing them to United States ports, but long before the incubation period terminates in symptoms they may be in Chicago, Milwaukee, or any part of the United States, and develop their first symptoms there. Tropical, or international medicine, is now on the doorstep of all of us. We cannot limit our interests to the diseases of our own community, as we did even ten years ago. From the standpoint of malaria, this does not mean a deluge of new cases, but does mean that

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each of us more frequently in our daily practice must consider malaria in the differential diagnosis and occasionally face the question of adequate treatment.

My own conception of malaria in the broad sense is that it is not a single disease, but rather two diseases, that caused by the falciparum infection with its very special behavior, and that caused by the other species, namely vivax and quartan, the behavior of which may conform more closely to the generally accepted chills and fever cycle. With falciparum infections especially, symptoms may not suggest malaria, and often with vivax and quartan as well the so-called classical (periodic) fevers may be modified or absent.

The most exciting development in many years has been the recognition of the so-called exoerythrocytic phase of malaria, a phase important in vivax malaria for the infection may persist in liver cells (that is, outside the blood) and escape usual treatment so that relapses occur after therapy has been stopped.

But, rather than trying to cover the field of recent happenings in the problems of malaria, I would prefer to emphasize the basic facts in recognition and treatment, for your problem is not an endemic problem with its public health implications, but recognition, diagnosis, and treatment of occasional cases.

The first of these problems is recognition. Suspect the disease in every patient who has been in, or travelled through, endemic malarious country. Experiences of the past war have many times taught the importance of this rule. Until civilian practitioners developed an awareness of possible malaria, a number of instances of confusion in diagnosis occurred in soldiers flown home on leave. Let me give you a similar example from my own experience. A Brazilian sailor, 28 years of age, was brought to me by a student physician, also a Brazilian, because he had been suffering from headaches for the previous two weeks. These were severe, sharp, and right-sided, located over the parital and temporal regions, and were frequently set off by the patient's passing his hand through his hair on that side. He had consulted an internist five days before and had been advised, after an examination which included compression of the temporal artery, to have the temporal artery on that side tied off. There was little else to the story, except that the patient had shipped out of Brazil a week before reaching New Orleans. When questioned, he stated he had been treated for malaria three months previously. Physical examination showed nothing important but a temperature of 99.3° and a palpable tip of the spleen. Thick films were positive for falciparum malaria and treatment caused all symptoms to clear up. This patient could have been seen as easily in Chicago or Springfield as in New Orleans.

This case demonstrates several additional aspects of malaria that should be mentioned. In the first place, those not familiar with the disease frequently disregard the diagnosis until chills and fever appear. In chronic malaria, especially of the falciparum type, other symptoms are outstanding. Headache, as described in the above case is not infrequent. Others include nausea and vomiting (the "bilious" remittent type), delerium and coma, severe diarrhea, at times without fever, muscle cramps, or bronchopneumonic symptoms. But we cannot do justice to the symptomatology in such a brief listing. It will suffice to impress you with the protean nature of the symptoms of malaria.

Chills and fever are the characteristic symptoms of malaria, known to everyone, and should suggest the diagnosis; but chills and fever represent a symptom complex associated with many diseases and are not adequate for final diagnosis. Let me cite some personal observations in this regard. A 19-year old law student at Tulane developed a chill and fever and presented himself to a physician for care. History showed that he had lived all his life, until coming to school at Tulane, in a malarious district in Puerto Rico. He had been diagnosed as, and treated for, malaria while in Puerto Rico. With the present episode he was given some quinine tablets and sent to his rooms without blood examination. Chills and fever continued, so hospitalization was arranged. Here blood studies for malaria were done and were negative, but, because treatment had already been started, the negative results were ascribed to the drug and atabrin ordered. When the patient did not improve, more quinine was tried, and then intramuscular quinine. The temperature curve continued with a perfect quartan picture, and, after four weeks of failure to respond, the patient was labeled a "resistant" case of malaria and we in Tropical Medicine were asked to see him. I

found the history as described, but three facts indicated that, even with a past history of malaria, the boy did not have the disease. The white blood count was 11,000, an unusual figure in malaria; with vigorous treatment, no results had been obtained; there were three good sized erythematous plaques on the wrists. These were dull red and sharply circumscribed. These, with the elevated white count, suggested a pyogenic infection, notably chronic meningococcemia. I was so convinced of this that I ordered a blood culture and started sulfadiazine immediately. The clinical picture cleared abruptly and the blood culture was later reported as positive for Type II meningococcus.

Here, chills and fever with a typical quartan chart in a boy from a malarious area led to a suspicion of malaria. This was justifiable. But treatment before definite diagnosis lulled the medical observers into a false sense of security in diagnosis and delayed proper treatment for over four weeks — and treatment that was so simple, too.

Another similar example is that of a white woman, 26 years of age, who was admitted to the hospital with acute appendicitis. The first seven postoperative days were uneventful and at that time the patient was permitted to sit up. She had a chilly sensation and temperature elevation to 101°. Since she had been in malarious country some months before, malaria was suspected. Smears were negative and she was kept in bed two days. Since she again felt well she was permitted to sit up and again fever recurred. Antimalarial therapy was started. She was again put to bed two days with similar absence of symptoms. Then again, while walking about the solarium, fever appeared. As a visitor with some experience in malaria I was asked to see the patient. Close quizzing showed little historically except some slight dysuria. With this and fever appearing at times ambulation was started, I checked a urine specimen which preoperatively had been normal but now showed clumped pus. Cystoscopy revealed an extensively infected bladder, probably resulting from catheterization after operation and treatment produced complete recession of the febrile periods. The fact that anyone passing through, or from, a malarious area is potentially malarious should never be forgotten, but it is not adequate for a definitive diagnosis.

It is obvious that diagnosis should be made only by demonstration of the organism. All three of the cases described demonstrate this; one, a non-characteristic history which was proved to be malaria, the other two, strongly suggestive histories proved to be something else.

The confusion given above it not rare. We have been collecting case records of patients we have seen with chills and fever who have been suspected of malaria and treated for periods as such. A sixty-five year old man with recurrent chills and fever, treated for six weeks for malaria, was seen by me as an out-patient. Between episodes of fever he felt fairly well but was becoming weak. From the symptoms, his physician was convinced that the patient had malaria and had treated him for six weeks on that basis. Examination showed clear lungs, a systolic apical murmur, a palpable spleen, and little else. The white blood count was 9,000. We requested blood cultures and they were repeatedly positive for streptococcus. A diagnosis of subacute bacterial endocarditis was made and treatment with penicillin, delayed for six weeks by the antimalarial therapy, was effective. The man is still well two years later.

It is only by demonstration of malaria parasites that we know just what we have to treat. We know the type of malaria and can prognosticate as to recurrences which are to be expected in vivax malaria. We know we are not treating something else and depriving the patient of a form of treatment indicated by the proper diagnosis. Cases 3 and 4 demonstrate this error very clearly.

It is a common error to give a few tablets of quinine or atabrine rather than make a smear for diagnosis. With chloroquine, and an even shorter time for adequate treatment, this procedure is even more enticing. Then when a diagnosis is seriously sought, the therapy is said to have concealed it.

By the thick film method diagnosis can be made in 99.5 per cent of the cases of symptomatic malaria. In the past five years we have deliberately infected with malaria approximately 500 patients, the majority by blood inoculation but a certain number by inoculation through the bites of infected mosquitoes. Throughout the country many hundreds of such cases have been infected either in the course of the treatment of syphilis of the nervous system or in the study

of volunteers. It is, of course, true that infections do not always develop in 100 per cent of such cases. Where parasitemias are demonstrable there may not always be clinical manifestations of the infections.

I think it is very important to realize that in these thousands of cases, none has shown a single sign of fever or other reaction without the finding of the parasites either simultaneously or within the next forty-eight hours. In short, single brief examinations of a well made thick blood film on three successive days should demonstrate malaria parasites if they are present. Not only is the thin blood smear too difficult to stain properly, too tedious to examine, but it is particularly prone to artifactual conditions which cause a wrong diagnosis.

The thick film is the only practical method and this is especially true in infections with a light parasite burden where tedious search is necessary to demonstrate the parasite in a thin smear. The thick films present many more parasites per specimen than do the thin smears. In the absence of the proper stain, thick smears can easily be made without any additional equipment at all, dried and mailed to a laboratory for diagnosis. The simplicity with which this can be done, if the practitioner objects to developing the staining technic himself, is such that there is *no* excuse for the treatment of malaria without a microscopic diagnosis.

The presence of the malaria parasite in a patient's blood does not necessarily mean that malaria is the sole cause of the symptoms. This is an important fact to remember. Patients with malaria may or may not have active symptoms from malaria when the parasite is circulating in their blood. They may have symptoms from other causes. Let me give you an example, again from my own experience. I was making ward rounds twice weekly for several weeks in a hospital in South America. Malaria was endemic in the area and every patient, regardless of symptoms, was required to have a malaria smear on admission. Late one night a male Indian was admitted and the smear examined in the night laboratory was positive for falciparum malaria. The physician on duty that night started chloroquine immediately. The next morning at rounds the chart was reviewed and the data given above noted. The spleen was palpated and treatment continued. The next day was one of

TABLE 1

SPECIES	DRUG	INDIVIDUAL
strain	varied effects	resistance
strain behavior	dosage	susceptibility
origin	suppression	tolerance
virulence		immunity

TREATMENT

of—The immediate attack	of—The underlying infection
Primary or Relapse	a—falciparum, potentially serious; readily cured
	b—vivax & quartan less severe; variable relapse rate

my regular days for ward rounds. I found the clinical state essentially unchanged and, going over the man, also found a right middle lobe pneumonia. Treatment with sulfadiazine caused a prompt improvement. This man had malaria, but he had pneumonia, too. In areas where chronic malaria exists, many patients develop a state of chronic malaria in which they carry on their work, although not at top efficiency, and live along with their malaria. Flare-ups occur with new fresh intercurrent disease and the physician must be alert for two disease processes and not one.

Closer to your home problems are the returned veterans with recurrent vivax malaria. Sufficient time has elapsed so that these cases are now terminating, the length of time during which relapses occur being about three years. Only about one per cent go over this time period. In many of these men we have had the problem, and I am sure you have had it too, of seeing other diseases giving febrile states that are confused with relapse.

The next patient is one who was hospitalized in Auburn, Alabama, in May of 1947. This patient, a 23 year old white male, reached New Guinea in 1943 and returned to the United States in December, 1945. During this time he took atabrine and had episodes which were probably actue attacks of malaria in October, 1944, October, 1945, and February, 1946. During 1946 he had repeated attacks of chills and fever, always with a negative blood examination. In November, 1946, a report from the Veterans Administration showed the finding of *Plasmodium vivax* following the administration of adrenalin. He took quinine continuously from December, 1946, to the end of March, 1947,

TABLE 2

DRUGS	QUINACRINE "Atabrine"	CHLOROQUINE (SN-7, 618) "Aralen"	CHLORGUANIDE (SN-12, 837) "Paludrine"
Dose in grams	0.100	0.500	0.100
Frequency	6-9 first 24 hrs., then t.i.d.	1.0 on diagnosis 0.5 after 6 hrs. 0.5 daily 2 days	b.i.d. or t.id.
For days	7	3	1-10-14
Blood level, gammas/100 cc.	40-150	100-160	25-150
Toxicity	nil or slight; yellow color	rare side effects	nil
Falciparum	cures	cures	cures
Vivax relapse	delayed	delayed	less delayed
Suppressive dosage	0.1 gm. daily	0.5 gm. weekly	0.3 gm. weekly

and on admission to the hospital he had complained of back pains so severe as to require morphia. Three daily urinalyses were reported as negative and the leukocyte count was 5,000. The temperature chart showed spiking twice a day with chills before the temperature rise. He received 10 grains of quinine every four hours for the first three days and then was given atabrine as indicated; and he continued to take atabrine (one tablet daily) until September. The casual observation of one or two tiny masses of pus-laden mucus floating above a rather heavy sediment of urates in a specimen passed in the office, resulted in this man's being referred to a urologist who discovered a left-sided pyelitis with torsion of the ureter. He has had no further

TABLE 3

DRUGS	ISO-PENTAQUINE (SN-13, 276, iso-274) Pentaquine	PLASMOCHIN	QUININE superseded since 1945
Dose in grams	0.010—0.020	0.010	0.6
Frequency	0.020 + 0.6 quinine t.i.d.	with quinine or following atabrine therapy, t.i.d.	only with plasmochin or pentaquine, t.i.d.
For days	14	5-14	7-10
Blood level, gammas/100 cc.	?	?	3-10 mgm./L.
Toxicity	½ of plasmochin	yes	nil, side effects
Falciparum	cures	cures	controls only
Vivax relapse	over 80% cures; may be given during parasite-free interval	decreased	early
Suppressive dosage	nil, too toxic	nil, too toxic	0.6 gm. daily (poor)

attacks since he was treated for that condition. Treatment for the urinary tract infection cleared the symptoms. The patient had had malaria, but he had something else with it. Many of these have been urinary tract infections, some upper respiratory and other infections. The patient often thinks it is his malaria and tells you just that.

It must be remembered that in the malarious patient all that is fever is not malaria.

When the diagnosis is settled, the problem of therapy arises. When you treat, treat adequately. With all the drugs now available, physicians with little experience with malaria may be in a quandary as to which drug to use and when. The accompanying tables summarize most adequately the data as to dose, length of time for adequate treatment, drug preferred in various types of malaria, toxicity and suppressive dosage. Table 1 shows the general approach to the treatment of malaria in an individual with regard not only to terminating the immediate attack but also to the effect on a possible relapse. The drug should be chosen with all these three factors in mind. Tables 2 and 3[2] show the drugs that are used. In the second table it will be seen that only atabrine, chloroquine and plaudrine are listed. Atabrine is included chiefly because of its availability. Chloroquine is the drug of choice for the treatment and termination of the immediate attack. Less efficacious and more useful for prophylactic purposes is plaudrine. Pentaquine and plasmochin are useful, together with quinine, in the treatment of the underlying infection and eradication of the disease. So it will be seen that quinine alone has little or no place in the treatment of malaria today.

SUMMARY

1. The importance of malaria to those living in areas not considered endemic is ever increasing with rapid air travel.

2. Adequate diagnosis of malaria rests upon suspicion of the disease in all persons having lived in or travelled through malarious territory, followed by blood examination by adequate methods.

3. The absence of, and the variation in, symptoms in malaria is not sufficiently recognized and should be stressed. In the malarious patient all that is fever is not malaria.

4. Therapy should be individualized as to patient and to type of malaria.

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FACTORS IN BETTER BREAST-FEEDING

There are a few bedside points which may contribute to better breast-feeding. The breasts of the mother lying flat in bed tend to roll off either side of the chest giving rise to undue congestion of the lower outer quadrants. Breasts will fill more uniformly and empty more completely if the mother wears a nursing brassiere in bed as well as while up. The breasts should never be bound tightly against the chest wall. The nipples should be cleansed before and after each nursing. A satisfactory method is the use of aqueous zephiran 1:2000 followed by sterile water. This preparation is less irritating than soap, less dangerous than boric acid, and more antiseptic than either of the other two preparations. Cleansing the milk from the nipples immediately after nursing and applying a sterile cellophane or gauze flat will prevent infection. Some physicians prefer the use of plastic nipple covers, known as "plasti-shields."

Excerpt: Breast Care in Pregnancy, John Parks, M.D., F.A.C.S., professor of obstetrics and gynecology, George Washington University School of Medicine; Medical Annals of the District of Columbia, August, 1949.

Dyslexia From the Physical Viewpoint

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Dyslexia (G. dys. abnormal, lexis, reading) is a syndrome characterized by an inability to learn to read properly even though the individual's intelligence may be normal or superior. Dyslexia is the resultant of all abnormal factors which interfere with learning to read. These factors are *functional*, observable, preventable and correctable, in contra-distinction to alexia.

It is the purpose of this paper to present certain broad aspects of the problem of dyslexia, to outline the influence of some psychophysiologic elements involved in reading difficulties, and to discuss the predominant physical findings in 215 cases of dyslexia under treatment.

Broad Aspects of Dyslexia.—Next to intelligence, which is so essential to learning, a healthy body is most important. The degree to which normal or abnormal functions influence the process of learning as a whole depends upon the individual's ability to adjust himself properly to the psychophysiologic stimuli that are imposed upon him. The degree of this homeostatic stability and adaptation depends on the degree of normality of all the diverse functions that are involved in the reading processes.

Reading is a complex achievement, and the more intelligent a person is and the more perceptual experiences he has encountered, the more quickly he learns from abstractions and symbols. If we accept the customary concept that reading is a simple reaction to visual stimuli, then it would be easily accomplished. However, in order to understand reading achievements and failures, it is necessary to consider the central perceptual and conceptual processes as well as the entire peripheral ocular mechanism in all its complexity and in addition the general physical status of the patient.

Nearly all of failures in the first grade are due to difficulty in learning to read, and that holds true also in the higher grades. According to educational surveys from 15 to 25 percent of the school population has some degree of dyslexia. The amount of retardation may be only slight or so great that their reading ability is on the second or third grade level when they are in high school. The socio-economic status of the family seems to have no significant influence on the development of dyslexia.

In the series of cases presented in this study, the average intelligence quotient was 108, with the highest, full scale I.Q. at 147. Peculiarly, boys having reading difficulties outnumbered girls 4 to 1. The average chronological age was 12 years 3 months. It is safe to assume that most cases of dyslexia develop in the early grades, which means that the child has been floundering about until he reaches the sixth or seventh grade before a *concerted effort* is made to diagnose and correct his difficulty. The chances are that nothing will be done about it until the school administrators, parents and the public are willing to abandon the idea that the teacher is entirely to blame for these failures. By no means should the teacher be relieved from her responsibility either. It is equally important that physicians assume their proper role in the solution of this problem.

Dyslexia cannot be considered as simply reading disability. It has many ramifications. In the entire syndrome one must investigate also the development of personality and emotional maturation and stability. In this investigation cognizance must be given to the hereditary traits and especially the environmental medium in which the child lives. As a result of his malachievement the child usually feels he is subnormal mentally and many times is so treated. He loses his self reliance and he may refuse to attempt even simple tasks. His feeling of belonging and personal worth may be affected adversely not only in the school group but in the family itself. Thus he begins to withdraw from social contacts and perhaps becomes a day dreamer to live in a world of his own making. He becomes frustrated and at times resents any attempt at correction. The printed word may re-

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call unpleasant experiences resulting in fears which are expressed throughout the entire emotional and physical reactions.

General Physical Study of Dyslexia.—The following data were catalogued after an analysis was made of the more prominent general physical conditions found in this study of 215 cases of dyslexia. The results and conclusions are presented with the preface that all data should be interpreted as being only a part of the syndrome. The syndrome must be evaluated in its entirety not only from the physical findings, but also the entire personality must be taken into consideration. This requires a complete history from every aspect, including intellectual and emotional appraisals, social investigations, educational achievements including special abilities, or disabilities and habits of work and play.

Disturbed Nutrition.—Evidence of disturbed nutrition as shown by the general appearance of the patient was present in many cases. Twenty-one percent had cervical adenopathy. Twelve percent were overweight, and seven percent were underweight. Concurrently ten percent were constipated which required dietary regulation and supplementary treatment.

Endocrines.—As reviewed by Ivy and Krasno it is generally accepted that the endocrines, especially the thyroid gland, are involved in the maintenance of the normal personality and intellectual functions.

One of the most outstanding facts which come from experimental and clinical research with humans is that the optimum effects of thyroid functions or medication upon mental growth occur before eleven or twelve years of age, and that administration of thyroid extract is almost futile after that age as far as mental growth is concerned. On the other hand, individuals who develop a hypothyroid condition subsequent to the full growth and maturation of their nervous system do not manifest a true mental deficiency, although they may become lethargic, "dull" and physically sluggish, whereas, the hyperthyroid individual is irritable, hyperactive and may be emotionally unstable. Adequate medication may change these symptoms and make the hypothyroid patient more responsive and the hyperthyroid individual less reactive. Tentatively, it may be said, however, that the quality of the mentality and personality of these individuals in either case have not been changed. Normal mentality and integrated personality, depend a great deal upon normal metabolic bodily processes, particularly the nervous system. To that end the endocrines, especially the thyroid, are important in children. Subsequent to full maturity the personality and mentality of the individual are quantitively regulated by endocrines upon the nervous system.

This should not carry the implication that reading difficulties are due to lack of normal mental development, although for certain cases this is indisputably true. In dyslexia a very large group of cases are not dull in learning in general, yet, they are poor readers.

In our study, 27 percent of the patients had hypothyroidism, and 4 percent had hyperthroidism. A few showed definite pituitary deficiencies. In order for a patient to be considered as having abnormal thyroid function it was necessary that he have symptoms which indicated theraputic intervention. The mere fact that a minus or plus metabolism was reported was not sufficient, although the average basal metabolism in the hypothyroid group was −15 and the hyperthyroid cases averaged +15.6.

Reaction to Stimuli.—Since reflexes are rather indicative of the status of the nerve reactions to stimuli, one must consider that 15% of our patients had sluggish reflexes, while 11% had exaggerated reflexes. Jerking of the head, twitching of face or other choreic symptoms were present in 6%.

As ideas and learning are basically the reaction to perceptual experiences arising from sensations, both motor and sensory, abnormal reflexes influence the individuals ability to respond to sensations normally. Normally according to his intelligence and ability to interpret his past perceptual experiences the person is enabled to arrive at an understandable concept, not only of his environment but also of his own intropective responses, in harmony with his psychobiologic needs. This response would be modified according to the degree of abnormal nerve reaction.

Enuresis.—The incidence of enuresis in our patients was 18% i.e. they gave a history of having had it, or it was still persistent. In enuresis one finds many cases who have a compulsive type of personality. Many continue to revert to infantile behavior, as occasionally evidenced by thumb-sucking or fingernail biting,

with immature attitudes were they refuse to "grow-up" and accept responsibilities, not only in school but in their entire social and personal growth. Not all who have this attitude are enuretic, nor do all enuretics have this attitude. There are innumerable factors which may cause this, but to mention one, a further investigation into the causes for the infantile temperament will often reveal that the mother or some one is still reading stories or his assignments to him. This would naturally eliminate any desire or incentive for the patient to read for himself. Furthermore he is getting attention which he craves and a feeling of security by being dependent. Oral reading to the patient is acceptable, providing it isn't used by him as an avenue of escape from his obligations of reading and preparing his assignments. One of the most difficult types of cases to correct is one in which all of the apparent irritating factors have been corrected and the parents attitudes have become wholesome, and yet the child refuses to do any reading. Sometimes it may require months before his shell of indifference is broken, but usually afterward they progress quite normally.

Nasal Factors.—The incidence of allergic manifestations of major importance was the same in this series as in the general population, 10%. The nasal obstruction resulting from allergic rhinitis, or any causes, interferes with proper breathing, causing some degree of anoxemia. In recent investigations, as reported by Andrews, by using the low pressure chambers, it was found that the first signs of the lack of oxygen, as a rule, were changes in mental efficiency. Problems which should have been solved were incorrect and the judgment was slightly reduced. These symptoms take place before there are any physical changes due to anoxemia. Sleep is disturbed, making it impossible for the patient to get proper rest and relaxation. These changes, if continued over a long period of time may have a detrimental effect upon the development of the child. As obstruction symptoms develop, the child takes on the appearance of a mentally dull individual, as in adenoid dysphasia. Whether their mentality is actually reduced or not, it is difficult to say.

Auditory and Speech Functions.—Hearing is such an important factor in language function it is important to make an audiogram in all cases. In addition conversational and whispered voice should be used in testing, for occasionally there is a wide variation found in the comparison of these two methods. This may be due to the child's general attitude of being inattentive or there may be some other reasons which must be determined.

Acute otitis media is usually the cause for the diminution of hearing in most cases. This may accompany any acute or chronic infection of the nose and throat as evidenced by hyperplasia and inflammation of the tonsils, adenoids, turbinates or hypertrophied lymphatic nodules on the posterior pharyngeal wall. Enlarged and infected tonsils and adenoids were present in 9% of our patients at the time of the original examination. Furthermore, as evidence of the severity of the early children diseases which the group had experienced, 14% gave a history of having had abscessed ears. A loss of hearing of 20 decibels or more was found in 23% of our cases on the date of admission to the Institute. This does not mean necessarily that the level of all frequencies were affected in all cases, for, in many cases there was a loss at certain frequencies only.

If a child cannot hear properly the influence upon spelling achievement is particularly noticeable, for apparently he misinterprets oral instructions and seems to become willfully heedless. Due to this hearing loss. the child may appear stubborn, indifferent, "dumb" and eventually becomes an extreme introvert the more he withdraws from social contacts. It is necessary that communications and directions given by parents and teachers to this child, be heard and understood. By all means seat the child in the school-room to the best advantage.

Whereas vocalization is the phase through which most of our ideas and instructions are expressed, and since it is so closely related to the hearing, one must consider the physical development and flexibility of the vocal organs and the patients ability to coordinate and control them during the production of speech sounds. Nine percent of our series were late in learning to talk. Many children who are unstable emotionally will show a blocking when required to read either orally or silently. We have had cases where they would become so emotionally upset and frustrated their voice became tremorous, their face became pale, and nervous twitching of their face was visible. It is quite

evident that no one, however, expert, could teach a child in that state of mind.

It is not to be presumed that the preceding discussion even approaches a complete coverage of the problem. The following are factors which were found coincidental with the others. Their percentages are recorded, without a general discussion as to their relation to the problem as a whole. It was felt, nevertheless, that they were significant in some of the cases where they occurred; cardiac arrythmia and murmur, 10%; need of dental care, 9%; asthmatic, 6%; anemia, 5%; high blood count, 3%; history of injury of head at birth, or subsequently, 6%; bronchitis and rales, 4%; in need of circumcision, 4%; history of rheumatic fever, 3%; undescended testicle, 2%; and rigid neck muscles, 2%. The Kahn test was negative on all of the patients.

*Visual Function.**—It is the customary concept that reading is simply seeing words, phrases and sentences. If it were as simple as that then the visual process would be practically the predominant factor in dyslexia. When a discussion of dyslexia is begun with most people, they preface the conversation with "that must be due to eye trouble." However, it is necessary to consider abnormalities of the eye as only a part of the symptom complex in retarded reading.

Only nineteen percent of the cases needed spectacles. There were twice as many farsighted as nearsighted patients. Several pair of glasses were removed which had been prescribed empirically to aid the patient with his reading. It is unfortunate that this is being done when glasses are not necessary, for some of the children had a high degree of exophoria which was aggravated by the convex lenses.

Ten years ago the number of investigations and publications dealing with the controversial question of dominance, eyedness, handedness, were considerably more than at the present. The evidence points to the conclusion that handedness is not significantly related to reading ability but that eye-hand dominance is probably present in some cases of reading disability.

In checking ocular dominance, eighty percent showed no preference; 8% had a tendency to alternate; 2% had a tendency to alternate but recovered quickly; 2% had a tendency to suppress one eye.

Phorias were normal in 55% of the cases, of the remaining 45% with abnormal phorias, half of them had exophoria at the reading distance.

Weak duction reserve, coincident with convergent insufficiency or accompanying accommodative or convergent spasm was present in many patients which caused undue fatigue. This may be evidenced by some general physical or emotional disturbance.

Dyslexia cases were inferior in their ocular function to that of the "norms," where rate of reading, number of fixations, regressions and span of recognition were considered.

Mirror reading, substitutions, or reversals are apparently self imposed psychological processes, maybe accidental at first, but with definite significance when analyzed in relation to the aspiration and motives of the child. He uses this as a means of getting attention, or an escape, by having other people believe he has a rare malady so therefore he is not supposed to learn to read. We found no cases of typical mirror reading.

Treatment.—The treatment depends on the diagnosis and the ingenuity of the people who are identified with the case, for there are no two cases identical, therefore, stereotyped methods are impractical.

In summarizing the observations made in this paper, it is pertinent to give as a resume the following truism: after the major difficulties that prevent proper reading are corrected and the hygiene of the body and mind as a whole is brought about, then and then only may one feel that the first prerequisites have been fulfilled for specifically attacking reading difficulty. The final goal is to get the child to read for himself for pleasure.

CONCLUSIONS

1. Dyslexia is a syndrome characterized by an inability to learn to read even though the individual's intelligence may be normal or superior.

2. The abnormal factors which interfere with learning to read are *functional*, observable, preventable and correctable, in contradistinction to alexia.

3. The incidence of dyslexia is sufficiently high to require for the correction, attention by all branches of medicine in cooperation with the other sciences.

*Park, George E.: "Reading Difficulty (Dyslexia) From the Ophthalmic Point of View," Amer. J. of Ophth., Jan., '48 Vol. 31, No. 1, 28-34.

4. The correction of this condition can be best attained after a complete examination, and appraisal of the child and his problem from every viewpoint, including physical, emotional, and pedagogic.

5. Presented are certain broad aspects of the problem of dyslexia: the influence of some psychophysiologic elements involved in reading difficulties, and discussed are predominant physical findings in 215 cases of dyslexia under treatment.

6. Anything, whether normal or abnormal which influences the child's life, affects his learning capacity, depending upon his ability to adjust himself properly to the psychophysiologic needs or stimuli which are imposed upon him. The degree of this homeostatic stability and adaption depends on the degree of normality of the divers functions that are involved in the reading processes.

7. The results and conclusions are made with the preface that all data presented upon the prominent physical conditions found in this study must be evaluated in their entirety in relationship to the personality and emotional adjustments of the patient.

8. Disturbed nutrition was present in many cases, as evidenced by the general appearance of the patient; overweight, underweight, and especially by cervical adenopathy.

9. Endocrine imbalances which presented symptoms to require therapy, especially hypothyroidism, was present in 31% of the patients.

10. Nerve reactions to stimuli were altered in 26% of the cases; 15% had sluggish reflexes, while 11% had exaggerated reflexes.

11. A compulsive type of personality was present, almost invariably, coincidental with enuresis which occurred in 18% of the children.

12. Nasal obstructions were present, 10% due to allergy, sufficiently to cause some degree of anoxemia and disturbance of sleep thus preventing the patient from getting proper rest and relaxation.

13. Several other symptoms are mentioned and their relative incidence recorded.

14. The loss of hearing of 20 decibals, or more, in all or certain frequencies only, was found in 23% of the series.

15. A good percentage had faulty vocalization, seemingly due to emotional instability. Nine percent of our series were late in learning to talk.

16. Glasses were fitted for nineteen percent of the children. Glasses should not be prescribed empirically to help children with their reading.

17. Ocular dominance, eyedness, handedness seem to have no significant correlation to dyslexia.

18. Exophoria, for near, was present in one of every four patients.

19. Dyslexia cases were inferior in their ocular function to that of the "norms", where span of recognition, number of fixations, rate of reading and number of regressions are considered.

20. Mirror reading is apparently a self-imposed psychological process with definite significance when analyzed in relation to the motives of the child. Maybe he uses this as an escape or to get attention.

21. The treatment depends upon the diagnosis and the ingenuity of the people who are identified with the case, for there are no two cases identical. Therefore, stereotyped methods are impractical.

DISCUSSION

Frank M. Lorimer, M.D. (Elmhurst)—It has already been mentioned that 18% of our patients have a history of enuresis. When we consider that emotional factors are implicated as the outstanding cause of enuresis, and when we consider that emotional factors are related to the stability or instability of parental figures and home environment, it is felt that erroneous statistics are obtained when taken from situations other than the traditional home environment. The children that we see at our clinic are all out-patients and come from traditional American home environment of varying degrees of intactness. Considering such factors, it is our impression that we see a high incidence of enuresis among children with reading disability.

To clarify a point that might arise, it should be stated that enuresis is not felt to be a symptom of reading difficulty nor is reading difficulty secondary to enuresis. In many instances they are both symptoms of an emotional conflict which involves interpersonal relations with the parents and siblings. Schroeder and Perkins have stated that the child is unconsciously reacting to overstrictness, too much interference of inconsistent firmness in the family situation. In a way, enuresis is a method of showing independence and defiance for such restrictions. However, the age group in which enuresis is most commonly found is that of children under 12 years of age. When we consider the fact that a feeling of security in a dependent situation and assurance of parental affection are necessary to a child

of that age group, we see that an emotional conflict arises.

A fear of loss of parent or parental love develops in the child when it fails to measure up to the parent's expectations. That fear is often reflected in over-compensation to be a "good" child and please its parents while awake. However, when the child goes to sleep, confused feelings are released in night terrors, bad dreams and enuresis. Some have said that enuresis is an unconscious release of pent-up or repressed hostility of the day.

It has been interesting to observe the correlation between the problem of enuresis and the neuropathic features of nail biting, thumb sucking, feeding difficulties, and temper tantrums. Personality features are that the patient is inhibited, sensitive, timid, worrisome, fearful of loss of parental affection, and striving to please. Environmental factors of over-demanding, critical, perfectionistic parents might be responsible. The presence of a proficient sibling who receives recognition for their productions to the embarrassment and frustration of the patient might also be a factor of importance. A broken home in which the security of the child is threatened is also to be considered. One boy that we examined about this time last year desired as his Christmas present to be rid of enuresis. It was a very embarrassing thing which caused him much worry only to aggravate the problem. It was found that the patient had been placed in a foster home earlier in his life and that his chief worry was that he would again be separated from Mother. Consequently the boy was trying excessively to please his mother. Recognition of the problem and reassurance assisted in making possible the boy's Christmas wish.

The therapy of enuresis should be directed at correction of any factor felt to be responsible whether it be physical, environmental or emotional. Often when the child is brought to the doctor many commendable methods have been attempted with varying degrees of success. It then becomes necessary to consider the emotional factors. Often times the insecurity of the child in a broken home is quite evident but difficult to correct. Other times, it requires considerable probing to determine the pressure exerted on the child. Each case requires individual attention. As Kanner states, "It is necessary to realize that a living person is attached to the urinating bladder." The parents can then be appraised of the doctor's opinion as to the emotional pressure and encouraged to modify their actions and demands upon the child. In general the problem of enuresis should be relieved of any feeling of shame, guilt or hopelessness that might have been developed by punishments, scolding or bribing. When enuresis is accompanied by other symptoms of personality disturbance, as is usually the case, it is well to look for excessive goals and standards, undue amount of criticism, or unfavorable competition. These can be treated by reassurance of affection regardless of achievement, praise for success, and removal of unhealthy competition. Often times it is necessary to treat the parents, showing them that this condition is not so terrible or shameful. In so doing, the tension in the home is relieved and the emotional security of the child is reestablished.

TAX GUIDES AVAILABLE

The "Schering Physicians' Income Tax Guide for 1950" is a new and up-to-the-minute edition of the popular compilation of information on how to prepare the doctor's income tax declaration and return. It is now being distributed free on request to the Medical Service Department of Schering Corporation, Bloomfield, New Jersey. Designed to meet the need of busy practitioners, every possible situation in the proper completion of income tax returns is covered clearly and concisely. It provides authoritative answers for everything from general tax return procedure to such problems as bad debts or the deductibility of reading matter for the physician's waiting room.

Prepared especially for physicians by tax experts Hugh J. Campbell and James B. Lieberman, the "Schering Physicians' Income Tax Guide for 1950" includes examples of filled-in tax returns, accompanied by lists of permissible deductions. The "Guides" are also being presented to physicians by Schering Professional Service Representatives, as a further service to the medical profession.

CASE REPORTS



Obesity

Diagnostic, Therapeutic, and Nursing Difficulties.

Warren B. Smith,
Danville

One Sunday afternoon I was called for an unspecified emergency case on the medical service of Saint Elizabeth's Hospital. Two hospital beds had been tied together with rope and there, twisting and turning and throwing himself about was a huge adult male, weighing 650 pounds. "The Fat Man" at a carnival side show had collapsed.

At the carnival grounds the patient had been loaded on a truck as it would have been utterly impossible to get this man into an ambulance. The sister in charge of the floor stated that twenty carnival employees were required to move him from the truck into the beds.

The patient was in coma, very restless, and there was danger that the beds would not stand the strain or that he might fall to the floor and be injured. Inquiry was made of his manager as to what kind of bed was used by this man and it was learned that he had a reinforced spring with a heavy lumber frame constructed just off the floor. This was sent for at once and proved most satisfactory.

History:—The history could not be obtained from the patient. His manager said that he had been coughing and spitting for the past few days, and he was unable to eat. He was short of breath and complained of dizziness and weakness on the slightest exertion. Shortly before admission he had fallen to the floor and was unable to get up or speak.

Physical Examination:—The patient was six feet four inches tall and extremely obese. The skin was cyanotic, cold and drenched with sweat. Respirations were rapid, shallow, noisy and associated with an almost constant productive cough. The radial pulse could not be counted and there was great irregularity in rhythm and force. The blood pressure was not determined because the arm was too large and a larger cuff was not immediately available. The ears, eyes

From the Medical Service of St. Elizabeth's Hospital, Danville, Illinois.



and nose were not remarkable. The throat was diffusely red and edematous, the tongue dry and heavily coated. The neck was twenty-eight inches in circumference but no pathology was discernible. The chest was massive, 70 inches in circumference at the nipple line. The breasts were large. Very distant, finely crepitant rales were heard in many locations over both lungs. There were also areas of absent breath sounds and it was not known whether or not these areas were due to consolidation or to the inability to hear through the rolls of excessive fat. Percussion of the chest and cardiac area was impossible. X-ray or fluoroscopic study was completely out of the question. At intervals the heart sounds were audible but they were not remarkable from the standpoint of valvular pathology. The cardiac rhythm was characteristic of auricular fibrillation.

The abdomen measured eighty inches in circumference. There were many large rolls of fat through which nothing could be heard or felt. The genitals could not be seen except when the many rolls of fat were separated; when exposed they appeared very small. The thighs were very large, measuring thirty-four inches in circumference at the mid portion. The arms and forearms also were large, the hands quite small, the fingers long and tapering. There was a marked chronic lymphedema of both legs. The circumference of the right calf at the largest point was forty-four inches, of the left calf twenty-two inches. Above the right ankle was a dirty gauze dressing which on removal revealed a large ulcerating area teeming with innumerable maggots. The left ankle measured sixteen inches and the right twenty-two inches. The left foot was twelve inches in length; the right thirteen inches. There was an infection of the right great toe. There was a diarrhea with a very offensive odor.

Tentative Diagnosis:—Probable pneumonia, type undetermined; acute tracheo-bronchitis; cardiac decompensation with auricular fibrillation; lymphedema of both lower extremities, more marked on the right side; chronic ulcer right lower leg heavily infested with maggots; infection right great toe; obesity weight 650 pounds.

Treatment:—The nursing care of this medical emergency was the first consideration. The sister in charge of the floor assigned two nurses to be with this patient constantly. If the huge right leg and foot slipped off the bed, all of the strength of the nurses was required to lift it back onto the bed. Because of the constant productive cough, attention was necessary to keep the patient and bed clean. The most difficult part from the nursing standpoint was the frequent, involuntary, foul, watery stool.

How should this patient be treated? He was unconscious and medication by mouth was not

advisable. No veins could be found in the masses of fat, except a single vein on the outer side of the right arm near the elbow joint. With constriction about the arm this vein could be felt, not seen, and its course made out for one inch. In order to relieve others of the responsibility, the doctor administered all of the intravenous fluids and medication and obtained all of the blood for laboratory investigation.

Penicillin was indicated. What should the dose be for a 650 pound patient? We decided to give 100,000 units every three hours in the muscle and a spinal puncture needle was needed in order to pass through the fat and into the muscle. Oxygen was given by nasal catheter and mask but the patient would not tolerate this procedure and removed it as fast as the nurse could replace the equipment.

It was reported that the patient had been taking digitalis, but no one knew how much or what preparation. As the fibrillation was marked and the heart was failing, crystodigin (Lilly) was decided upon, given intravenously, as the patient choked when given with a little water by mouth. The dose was not known for a 650 pound man, so 0.8 mg. was given every four hours and the condition of the patient evaluated by the physician before each dose.

Fluids were given by vein: 1000cc of 5% glucose in water three times in twenty-four hours. The ulcer of the leg was irrigated with Dakin's solution, dusted with sulfa powder and covered with a sterile dressing.

The patient became more quiet after the fluid was administered and appeared to rest.

The laboratory findings on admission were interesting. The red cell count was 4.6; hemoglobin 11.9 gms (77%), white cells 15,505, color index .83. Neutrophiles 94%, lymphocytes 4%, monocytes 2%, stab cells 22% and segmented cells 72%. The urine was acid with a specific gravity of 1.017, 3 plus albumin, no sugar. Hyaline and granular casts were present with a solid field of red cells. Blood sugar was 100 mg. per cent. The urine and blood sugar determinations were made before the glucose administration was made, and as both were within normal limits diabetes could be ruled out completely.

On the second hospital day the red count and the hemoglobin were unchanged but the total leucocyte count was 22,050 cells, and the neutrophils were 96% with 23% stab cells and 70% segmented. The urine contained albumin and a few casts but the solid field of red cells had been reduced to 80-90 cells and 18-20 pus cells were reported. Blood chemistry at this time showed N.P.N. 115 mgm., chlorides 445 mgm., and creatinine 6.65 mgm., respectively, per 100 cc. of blood. However since this was the only ex-





perience with an acutely ill 650-pound patient, the normal values for these procedures were not known. Every available source of information on this subject was investigated without success.

The patient showed considerable improvement at this time. There were periods of mental clearness with accurate conversation. He was oriented as to his name, his employer, age and many other common questions. He was able to take liquids and medication by mouth and would respond with complete cooperation when awakened.

In time the apex rate became normal and the radial pulse full and regular. With the change from fibrillation to normal sinus rhythm intravenous crystodigin was stopped and the preparation was given by mouth, 0.2 mg. morning and evening as a maintenance dose. The penicillin was continued unchanged.

On the fourth hospital day the total leucocyte count had fallen to 10,500 cells with 85% neutrophils, 15% stab and 65% segmented cells. The N.P.N. was 110 mgm., and creatinine 4.3 mgm., respectively for each 100 cc. of blood. The diarrhea was controlled and the patient was improved.

On the fourteenth hospital day the urine was neutral in reaction; specific gravity 1.008, no albumin, sugar or casts. Red blood cells disappeared and only 10-12 white cells remained. The hemoglobin dropped to 10 gms. and the red count to 3.7 with 13,200 total white cells. There were 13% stab and 73% segmented cells. The fasting blood sugar was 89 mgm., N. P. N. 65 mgm., creatinine 2.6 mgm., respectively per 100 cc. of blood.

At this time the patient demanded enormous amounts of food. Breakfast consisted of a quart of oatmeal, a loaf of bread, two quarts of half milk and coffee, a pound of bacon and a pound of fried potatoes. Within three hours after eating all this food he demanded additional feedings.

The patient became more difficult to manage and if denied anything, made so much noise that near by patients became upset and nervous. He was now up and about but confined in his room only because he had lost his glasses upon entering the hospital and could not see without them.

The situation became so acute that arrangements were made with the police to keep the man in the local jail while transportation was arranged. Because of his size it was necessary to obtain permission for him to ride in the baggage car as the coach seats were too small.

CONCLUSION

A case of a man weighing 650 pounds, acutely ill and in coma is reported to show the diagnostic, therapeutic and nursing difficulties encountered.

A report of a similar case could not be found, in a review of the literature dealing with obesity.

Thoracopagus: Vaginal Delivery Without Destructive Operation

Irving Siegel, B.S., M.D.
Chicago

Thoracopagus (double monster, junction at thorax) occurs approximately every 25,000 deliveries.[1] There is no record of this type of congenital deformity at Mount Sinai Hospital prior to this case. Delivery from below, without destructive operation on the conceptus, has rarely been reported[2] — and only in premature or priviable fetuses.

This case report deals with the vaginal delivery of a thoracopagus of 28 weeks gestation, and the criteria for the diagnosis before delivery.

The mother was a colored secundigravida, 22 years of age, of slight build, weighing only 94 lbs. when first seen in the prenatal clinic on February 1, 1949. Her L. M. P. occurred November 20, 1948, and her term date was August 27, 1949. The past medical, surgical, and family history were essentially negative. She had given birth to a premature baby in July, 1948, weighing 3 lbs. 11 oz. Examination of the mother at the first prenatal visit revealed no gross abnormalities. The uterus was enlarged proportionately for the duration of amenorrhea — 12 weeks. Pelvic measurements were normal; Kahn test was negative; Rh positive. The patient had a moderate anemia for which ferrous sulphate was prescribed.

The patient made three more visits to the clinic and on the last examination, May 14, 1949, it was noted that the fundus uteri was almost the size of a term pregnancy. From the menstrual date the pregnancy was only 25 weeks in duration. A moderate hydramnios made auscultation and palpation difficult. Diagnosis of the presentation and position was inconclusive and therefore x-ray films were made in the AP and lateral positions. Only the lateral film (Figure 1) is reproduced here because details on the AP film are obscured by the mother's spine. It was noted that the fetuses lay close together, the heads at the same level, breeches presenting. In the AP view, the heads were on the same level — about 2.5 cm. apart, and the proximity of the thoraces was obscured by the maternal spine. The x-ray diagnosis was twins, both presenting by breech, about 28 weeks gestation.

It was suspected that the fetuses might be joined because of the symmetrical position, and



Figure 1

From the Department of Obstetrics and Gynecology of The Chicago Medical School and Mount Sinai Hospital of Chicago.

Read before the Chicago Gynecological Society, Oct. 21, 1949.

it was decided to re-x-ray the abdomen the following week. However, before the x-ray could be repeated, the patient was admitted to the hospital on Dr. A. Klawans' service with a history of premature rupture of the membranes, followed in one hour by moderate vaginal bleeding. Pains began two hours later.

On admission, the patient was having 5 minute pains. Examination revealed fundus uteri at the height of 30 weeks gestation. Fetal heart tones were audible on the left side only. There was moderate vaginal bleeding. Preparations were made for blood transfusion and a double set-up for vaginal examination to rule out placenta previa; but before the examination could be done, the pains became very strong and three hours after admission, the presenting part was visible.

The patient was moved into the delivery room where a vaginal examination revealed the vagina filled with an amazing conglomeration of heads, feet, and buttocks. Cyclopropane was administered to the patient, an episcotomy was performed, and trial traction was made on two feet which seemed to be a pair. As traction was continued, another pair of legs started to descend. An attempt was made to push up the second pair of legs while exerting traction on the first pair, but this failed. As traction was continued, a stage was reached where four legs and thighs were protruding symmetrically from the vagina in the AP position, facing each other. A moment later, both pelves of the premature infants slipped out of the vagina and then it was observed that the fetuses were joined ventrally from the level of the navel upwards. The one umbilical cord had a deep longitudinal groove and was not pulsating. Embryotomy was considered, but further trial traction delivered the shoulders and both heads almost in one movement. The placenta was delivered three minutes later by early expression, and a bleeding laceration of the cervix, 2 cm. in length, was sutured. The episiotomy was repaired, 500 cc. of blood was administered and the mother left the delivery room in good condition. The patient was discharged from the hospital on the sixth post partum day.

The fetuses were stillborn (Figure 2). X-ray of the double monster after delivery is shown in Figure 3. The report of the pathologist was as follows:



Figure 2

"The body was that of a premature male Siamese twin attached by the left anterior aspect of the chest and upper abdomen. Each one measured 19 cm. (crown — rump) and 31 cm. (crown — heel). The skin was reddish-pink and showed first degree maceration in some areas. The umbilical cord was single and was attached to the junction of the upper abdomen of the babies.

"*Internal examination* (Figure 4): On opening the abdomen it was found that the babies had a common liver presenting a bizarre shape: on the middle of the anterior aspect of the liver there was an attached fibrous band resembling the anterior falciform ligament. A similar band was noted on the posterior aspect of the organ. The liver presented two porta hepatis. The gastro-intestinal tract and the urogenital tract of the babies were well separated and showed no congenital abnormalities, except that one baby had a congenital undescended left testicle; the testicle was in the inguinal canal.

"The pleural cavities of each baby were free but there was a single pericardial sac containing two hearts. The hearts have been saved for



Figure 3

further studies by the pathology department." The cardiac anomaly will be the basis for a separate report.

The placenta consisted of two fused sections. The cord bifurcated at its insertion, three vessels going to each half of the placenta. On the maternal surface near the periphery was a firmly attached old blood clot about 6 cm. in diameter.

SUMMARY

A case of thoracopagus is described with delivery from below, without destructive operation. The fetuses were previable. X-ray rarely reveals soft tissue union of double monster, but the diagnosis of thoracopagus in utero can be made with reasonable certainty by x-ray if the following criteria are present:

(a) The twins face each other.

(b) The poles of the fetuses are at the same level.

(c) The thoraces of the fetuses are in proximity.

(d) Repeat films taken several weeks later reveal no change in the attitude of the fetuses toward each other.

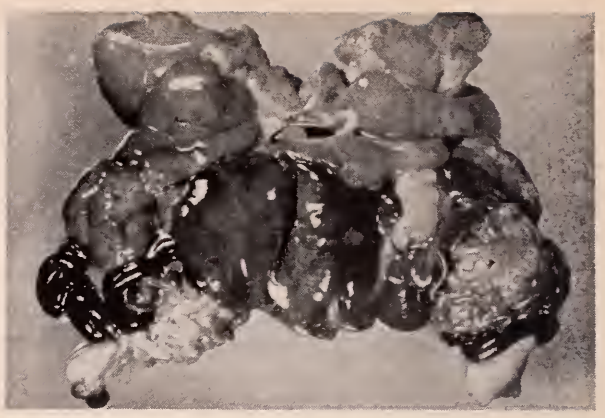


Figure 4. Single pericardial sac and common liver.

I wish to express my appreciation for the assistance of Dr. Julian Arendt, Head of the Department of Roentgenology of Mount Sinai Hospital, and of Dr. E. P. Leroy, Assistant Pathologist of Mount Sinai Hospital.

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Bullous Emphysema and Asthma

Milton M. Mosko, M.D., and John O. Baugher, M.D.
Chicago

Our experience indicates that some degree of emphysema is an inevitable result in patients with chronic perennial asthma. This is particularly true of those cases in which there is associated infection with chronic bronchitis.

The majority have emphysema of the vesicular or parenchymal type. For these, therapy is generally unsatisfactory, and essentially is directed towards symptomatic relief of asthma, specific treatment of the infectious element, and those measures that increase the vital capacity of the lungs.

In a small percentage of cases the emphysema is in the nature of bullous lesions. The bullae or blebs show a tendency towards progression in size and extent, and eventually produce a severe disabling dyspnea by reducing the negative intrapleural pressure, and by displacement and compression of the adjacent lung.[1,2] Bullae and emphysematous blebs are essentially the same lesion, differing mainly in respect to their location; the bullae being intrapulmonary, and the blebs intrapleural. The term bullous emphysema applies equally well to both .[3]

The following case report is of a patient with chronic perennial asthma associated with infection, complicated by bullous and vesicular emphysema.

W. R., a 34 year old colored male, was readmitted to the hospital November 23, 1947, complaining of fever (102°), productive cough, and severe dyspnea of three days duration. He expired 60 hours later.

History and service records revealed that he was in good health at the time of entry into the Army in 1939. In the latter part of 1942 he developed mild dyspnea on exertion. His weight was 165 pounds. He developed at this time a pneumonitis of one week's duration. Dyspnea on exertion persisted until October 1943 when he again developed pneumonitis. His overseas service in England and Africa entailed exposure to cold and damp weather, and he was almost continuously ill for four months with paroxysmal attacks of wheezing, productive cough, repeated febrile episodes and severe dyspnea. He was given a medical discharge in May 1944 for asthma and emphysema, and was told that his right lung contained several large air sacs. He was then able to work for the next year and a half as a bus driver.

In December 1945 he was first admitted to the V. A. Hospital at Hines, Illinois with fever (102°), dyspnea, wheezing and chest pains. His weight was now 145 pounds. Chest x-rays revealed increased markings at both bases and numerous bullae in the right upper lung. Treatment with penicillin and oxygen afforded relief but the dyspnea and wheezing persisted. After discharge he was able to work again until readmission in November 1946. At this time his temperature was 103°, and he had severe chest pain, cough, dyspnea and wheezing. Treatment with penicillin, aminophyllin, ephedrine and epinephrine afforded almost complete relief. The

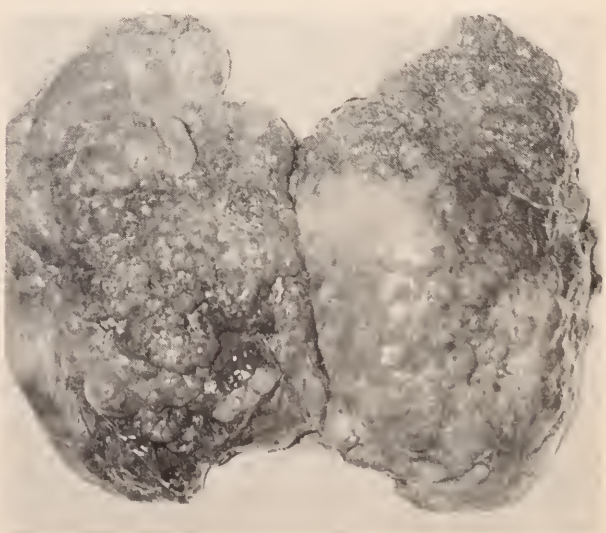


Figure 1. Bilateral bullous emphysema

From the Medical Service, Veteran's Administration Hospital, Hines, Illinois, and (M.M.M.) Dept. of Medicine and the Allergy Unit, the University of Illinois College of Medicine, Chicago, Ill.

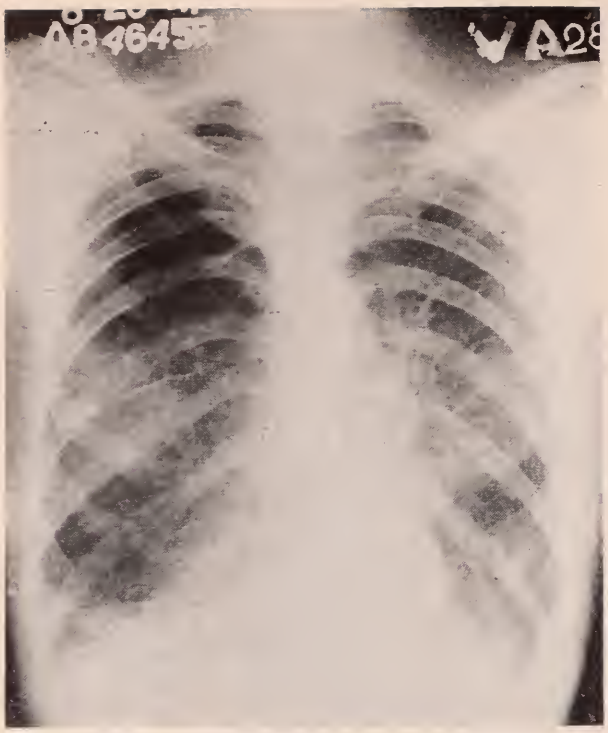


Figure 2. Bullous emphysema and pneumonitis

white blood count was 26,000. X-rays revealed an irregular infiltrate in the left base and bullous emphysema. EKG suggested early right ventricular strain. After three weeks hospitalization he was well enough to be discharged, but two weeks later he was again readmitted with a bilateral pneumonitis and similar symptoms as in the past. During the next four months of hospitalization he had two episodes of pneumonitis. His weight dropped to 125 pounds. Vital capacity averaged 1.8 liters. The white blood count was 13,500 with 12% eosinophils. Sputum cultures revealed mixed respiratory organisms. Skin testing revealed slight reactions for varied foods and were completely negative for all inhalants. Elimination diets failed to correlate these skin reactions with his symptoms. The drugs of choice were found to be aminophyllin and aerosol penicillin. In August 1947 he was readmitted for the fourth time with fever, cough, dyspnea and typical findings of pneumonitis in the right lung, plus an obvious increase in the amount of bullous emphysema, and he was discharged three weeks later after treatment as in previous episodes. He was able to return to work and was receiving out patient treatment for his asthma. His vital capacity at this time was 1.2 liters, and his weight was 120 pounds.

Three days later before his final admission he developed fever, chilliness, productive cough and severe dyspnea. His entry into the hospital was delayed by relatives who practiced Christian Science. On admission his temperature was 102°. Physical examination revealed an extremely ill, poorly nourished colored male, very apprehensive and gasping for breath. Breath sounds were absent over the right upper lung, and numerous coarse and dry rales were heard in the remaining portions. Expiration was prolonged. Respiratory and pulse rates were increased to 28 and 130 respectively. Accessory respiratory muscles were in full use, and the chest was hyper-expanded and resonant. X-rays revealed marked bullous emphysema, particularly on the right, and bilateral pneumonitis. The white blood count was 12,000 and the EKG showed right heart strain. All measures of treatment were of no avail, death occurring 60 hours later from respiratory failure.

Autopsy Findings. On opening the chest the lungs were seen to balloon out and overlap in the midline. Grossly they were pale, having the appearance of a cluster of grapes. Together they weighed 2000 gms. On the surface of the right lung were several large emphysematous blebs, varying in size, the largest measuring five cms. The pleurae over both posterior surfaces was shaggy and rough. The inferior and posterior portions of both lungs were heavy and congested. Cut sections showed areas of bronchopneumonia in both lower lobes with purulent secretion coming from the small bronchiolar orifices. No bronchiectatic areas were demonstrable. Cut sections of the right upper lung showed blebs, bullae, emphysema, and atelectatic areas. Histologically, the lungs showed much fibrosis and areas of round cell infiltration around the bronchi. There were many areas that were diffusely filled with leukocytes, mainly polymorphs. There was a small amount of anthracosis present and numerous "heart failure" cells. Many of the blood vessels were distended with red cells. In some of the sections the alveoli were markedly dilated and their walls broken. In the lower lobes, some of the alveoli were collapsed. The heart was grossly and microscopically normal except for some right ventricular hypertrophy. The epithelium of many of the bronchi was denuded and the lining of some of the alveoli showed a

transition to cuboidal epithelium. The liver, spleen and kidneys showed chronic passive congestion.

DISCUSSION

For this condition of bullous emphysema, as exemplified by the preceding case report, we have advocated an operative procedure which has afforded a great measure of relief. This is the so-called "Monaldi" type operation of intracavitary suction[4]. It induces a sterile pleuritis in the region of the affected area followed at a later stage by the continuous gradual suction decompression of the contained air within the bleb, thus relieving pressure, and inducing reexpansion of the lung with a corresponding increase of vital capacity. We have seen patients with even more extensive pathology than in the preceding cases described, markedly benefited. We feel that this patient could have been similarly benefited had we recommended surgery more vigorously. His dyspnea would have been immeasurably aided and conceivably his resistance to respiratory infections increased. The purpose of this case presentation, therefore, is to direct attention to those cases of advanced bullous emphysema accompanied by asthma for whom relief may be obtained by surgical decompression in addition to medical management.

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THE PHYSICIAN AND THE MAN

We question that any profession, or any group with common interests in the country, acts with more fairness and with less emotional display towards one of its members with whom it may be in disagreement than does the medical profession. Where many organizations will cast from their midst, or at the least exclude from any recognition by them, a member who takes a strong opposite view to the point of actively participating against the parent body, Medicine continues to practice the fine art of diagnosis, distinguishing between the skill of the physician and the frailties of the man that the latter may not be allowed to sway judgment on the former.

A case in point is that of our famed colleague, Dr. George Richard Minot of Boston. To the physician, Dr. Minot stands forth among the greatest, as one whose contributions to medical knowledge of the causes and methods of control of pernicious anemia have been recognized throughout the world.

Yet Doctor Minot, the man, is one of thirty-four physicians in the entire country who form an organization called the Committee of Physicians For the Improvement of Medical Care, Inc., whose opinions on medical-economic affairs and on medical legislation nationally run counter to the majority of us. Under such circumstances many groups would certainly penalize Dr. Minot whenever the opportunity presented itself, and most certainly he would not be the recipient of honors at the hands of those with whom he was in disagreement on any score.

Medicine, however, takes a different view. Thus we find the House of Delegates of the American Medical Association, in 1945, awarding the Association's distinguished service medal to Dr. Minot. And now comes word that the officers of the AMA section on experimental medicine and therapeutics has honored Doctor Minot again by asking that the Council on Scientific Assembly allow the creation of the Dr. George Richard Minot Lecture. This lecture would be given either at the 1950 or 1951 AMA session to honor an American investigator who has contributed in an exceptional manner to the development of clinical investigation and therapeutics.

Excerpt, Editorials, The Rhode Island Medical Journal, October, 1949.

NEWS OF THE STATE



COLES

Personal.—Dr. E. N. Zinschlag, Mattoon, has been awarded a fellowship in the American College of Surgeons.

COOK

Personal.—Dr. Samuel J. Taub recently returned from a trip to England, Switzerland, Italy and France. In Paris, Dr. Taub addressed the entire staff of the Policlinique Hospital des Enfants on "Allergic Manifestations of the Eye and Surrounding Structures" and "Superficial Punctate Keratitis with an Allergic Etiology."

Society News.—Dr. James H. Hutton addressed the Business and Professional Women's Club in Chicago, November 21, on "The Role Business and Professional Women Can Play in the Health of the Community."—At a meeting of the Chicago Rheumatism Society, November 30, the speakers were Dr. Kate H. Kohn, Michael Reese Hospital, on "Oral Penicillin in the Prophylaxis of Rheumatic Fever" and Dr. Conrad L. Pirani, Medical Nutrition Laboratory, U. S. Army, who discussed "Scorbutic Arthropathy and the Role of Vitamin C in Connective Tissue." Dr. Edward F. Rosenberg is president of the society; Dr. Stanley Fahlstrom, secretary-treasurer.—Dr. Walter J. Reich discussed "The Management of Incontinence in Women" before the fourteenth annual assembly of the International College of Surgeons, in Atlantic City, November 8.—Dr. Philip Thorek addressed the Hudson County Medical Society in Jersey City, December 6, on "Carcinoma of the Esophagus."

Sidney Smith Goes to St. Louis.—Dr. Sidney Smith, known for his work on the Potts-Smith blue baby operation, has been appointed assistant professor of surgery at St. Louis University School of Medicine, St. Louis, effective November 15. Dr. Smith will be surgeon in charge of the care for congenital defects of children and will also serve as chief of experimental surgery.

Dr. Youmans Leaves Illinois.—Chancellor Bennett Harvie Branscomb, Vanderbilt University, Nashville, Tenn., recently announced that Dr. John B. Youmans, University of Illinois, has accepted the deanship of medicine at Vanderbilt, effective March 1, 1950. Dr. Youmans will succeed Dean Ernest Goodpasture at Vanderbilt. Dr. Youmans is dean of the University of Illinois College of Medicine. He also has served as medical director of the University of Illinois Research and Educational Hospitals and the Illinois Eye and Ear Infirmary.

Appointments to Commission for Handicapped.—Dr. Edward L. Compere, Chicago orthopedic surgeon, was appointed a member of the Illinois Commission for Handicapped Children by Governor Adlai E. Stevenson. Dr. Compere is now chairman of the Department of Orthopedic Surgery of Wesley Memorial Hospital, consulting orthopedic surgeon for Chicago Memorial Hospital and for the Children's Memorial Hospital, and associate professor of surgery in the Northwestern University Medical School. The Commission for Handicapped Children acts as the state-wide coordinating, stimulating and promotional agency in the care, education and training of children. Members serve without pay and sit as a general policy determining body.

The Gehrmann Lectures.—Dr. Wesley W. Spink, University of Minnesota School of Medicine, Min-

neapolis, gave the Gehrmann Lectures at the University of Illinois College of Medicine November-December 1. His subjects were "Epidemiology and Pathogenesis of Brucellosis" and "Diagnosis, Treatment and Prevention of Human Brucellosis."

Memorial Lecture Features Fraternity Anniversary.—Eta chapter of Alpha Kappa Kappa, international medical fraternity, observed its fiftieth anniversary on the campus of the University of Illinois with a program of lectures and activities, December 2-3. The program featured the fourth annual Henry E. Irish Memorial Lecture. Dr. David J. Davis, dean emeritus, University of Illinois College of Medicine, discussed "Fifty Years of Medicine in Chicago." The lectureship honors the late professor and head of the department of pediatrics at the University and charter member of Eta chapter. The lecture was followed by the annual Founders' Day dinner at the fraternity house, 812 South Ashland Blvd., Chicago.

Cancer Grant to Stritch.—A $200,000 grant to the Stritch School of Medicine of Loyola University by the National Cancer Institute will be used to construct cancer research facilities, the Very Rev. James T. Hussey, S. J., university president, announced November 16.

Dr. James J. Smith, dean of the medical school, said detailed plans on construction have not been completed. Research will be carried out by Loyola staff members particularly Dr. Hugh J. McDonald, chairman, department of biochemistry; Dr. Herbert E. Schmitz, chairman, department of obstetrics and gynecology; Dr. John F. Sheehan, chairman, department of pathology; Dr. Wayne B. Slaughter, professor of plastic surgery; and Dr. Cleveland J. White, chairman, department of dermatology and syphilology.

The new cancer unit will be constructed in conjunction with Loyola's proposed development in the west side medical center and will be operated in conjunction with the University Hospital, 432 South Wolcott Street, which in 1948 was reorganized as a teaching affiliate of the Stritch School.

Lecture Series on Behavior.—The Chicago Medical School is conducting the following lecture series on "The Development of Behavior" to be held on Wednesdays, 12:30 p.m.:

January 11—The Mechanism of Neural Growth. Dr. R. W. Sperry, assistant professor of anatomy, University of Chicago School of Medicine.

January 18—Intrauterine Development of Behavior. Dr. F. W. Becker, professor of anatomy, Jefferson Medical College, Philadelphia.

February 1—Post-partum Development of Behavior. Dr. A. H. Riesen, associate professor of psychology, University of Chicago School of Medicine.

February 8—The Genesis of Abnormal Behavior. Dr. H. H. Garner, professor and chairman of the department of neurology and psychiatry, the Chicago Medical School.

February 15—The Induction of the Individual into Society. Dr. Kimball Young, professor and chairman of the department of sociology, Northwestern University.

March 8—Crime in Society. Dr. Clifford R. Shaw, chairman of the department of sociology, Institute of Juvenile Research, State Dept. of Public Welfare; Administrative Director, Chicago Area Project.

Dr. Crowell Leaves College of Surgeons.—Dr. Bowman C. Crowell, 105 E. Delaware Place, Chicago, was guest of honor at a farewell dinner at the Drake Hotel, November 12, given by the staffs of the American College of Surgeons and Surgery, Gynecology and Obstetrics. Dr. Crowell, a noted pathologist, is retiring as associate director and director of clinical research of the College with which he has been connected since 1926. Dr. and Mrs. Crowell plan to spend the winter in Florida, going first to Nokomis.

Recently Dr. Crowell was awarded the American Cancer Society's first annual medal "in recognition of his outstanding contributions to the control of cancer." Dr. Crowell, who is a member of the board of directors of the society, received the award from Dr. C. C. Nesselrode of Kansas City, retiring president, at the annual dinner meeting, October 28, in New York City.

On October 15, an honorary degree of Doctor of Science was conferred upon Dr. Crowell by Marietta College, Marietta, Ohio.

News from Hektoen Institute.—At the annual meeting of the board of directors of the Hektoen Institute for Medical Research of the Cook County Hospital, December 5, Dr. Morris T. Friedell, research associate, was appointed chief of the radioactive isotopes laboratory, and Dr. I. F. Stein Jr., was named research associate of the institute. Dr. Hans Popper, Scientific Director of the Hektoen Institute conducted a clinicopathologic conference and gave a lecture on "The Differential Diagnosis of Jaundice" at the Veterans Administration Hospital in Augusta, Ga.

Research Grants Awarded.—A grant in the amount of $26,396 has been awarded by the U. S. Public Health Service upon recommendation of the National Cancer Institute to Dr. I. Davidsohn for cancer research at the Chicago Medical School for the ensuing two academic years. The investigative work will be done at the school and at the Mount Sinai Medical Research Foundation and will deal with the factors influencing the susceptibility of certain strains of mice to cancer of the breast. A grant in the amount of $3,940.00 has been awarded to Dr. Piero P. Foa by the U. S. Public Health Service for the continuation of a research project in experimental diabetes, through investigation of the utilization of Vitamin B1 in diabetes. A grant of $500.00

from the Viobin Corporation, to be known as the Andrew C. Ivy Fellowship, has been awarded to Dr. Howard Sloan, Research Fellow in Physiology, for research studies on artificial kidney.

Varied Studies at Illinois.—Four grants in the total amount of $15,000 have been awarded to the University of Illinois College of Medicine in support of research investigations, Dr. A. C. Ivy has announced.

Studies in arteriosclerosis, or hardening of the arteries, by the department of pathology will be supported by a $10,000 grant from the Pauline E. Ruettinger Memorial Fund. The project will be undertaken by Dr. Maurice Lev, under the direction of Dr. G. A. Bennett.

Abbott Laboratories has made a $2,500 grant for a study of dietary therapy in liver disease to be conducted by the department of medicine. A second grant of $500 has been made by Abbott in support of studies in anesthesia.

Smith, Kline and French has awarded a $2,000 grant for the study of the effect of amines in experimental renal and other experimental hypertensions. The investigation will be undertaken by E. A. Ohler in the department of physiology, under the direction of Dr. G. E. Wakerlin.

Faculty Promotions.—Dr. Francis H. Straus has been promoted to the rank of clinical professor of surgery at the University of Illinois College of Medicine. A graduate of Harvard Medical College in 1919, Dr. Straus took his residency at Presbyterian Hospital and has had an active position on the surgical staff of the hospital since that time. Dr. Straus has held the rank of clinical associate professor of surgery since 1937. The promotion of Dr. W. J. Furuta to the rank of assistant professor of anatomy and Dr. Benjamin Pearlman to the rank of clinical assistant professor of medicine was also announced.

University News.—Dr. C. G. Baker, dean, School of Medicine, Guys Hospital, London, gave an assembly hour lecture at the University of Illinois November 25 on "Some Clinical Aspects of Cardiovascular Diseases."

Faculty News at University of Chicago.—Dr. John R. Lindsay, professor of otolaryngology, has been appointed a member of the Committee of Hearing of the National Research Council and has been awarded the Gold Key for service by the American Academy of Opthalmology and Otolaryngology.—During the period October 24 to November 18, 1949, several members of the department of medicine, Drs. Jeanne Ward, J. Thomas Grayston and William G. Beadenkipf, together with Laura Ydse, R.N. and Mary O'Neill, R.N., will undertake a field trip throughout southern and central Illinois for the purpose of testing student populations thus obtaining rates of histoplasmin sensitivity and pulmonary calcification. Skin tests will be made with both histoplasmin sensitivity and pulmonary calcification. Skin tests will be made with both histoplasmin and tuberculin and through the assistance of Dr. Clifton Hall, chief, division of tuberculosis control, department of public health, Springfield, chest microfilms will be taken on each project.—Dr. Joseph B. Kirsner, department of medicine, has been elected president of the American Gastroscopic Society.—Dr. Paul Weiss, professor of zoology, received the honorary degree of doctor of medicine, University of Frankfurt, August 27, 1949 and was elected vice president of the International Institute of Embryology recently.—The University of Chicago is conducting a series of postgraduate lectures and review courses for general practitioners. The South Side Regional Chapter of the American Academy of General Practice has more than seventy general practitioners enrolled.—Dr. Stephen Rothman, department of dermatology, recently spoke on "Recent Studies on the Chemical Composition of the Normal Human Skin Surface and Its Relation to Dermatological Problems" at the William A. Pusey Memorial Dinner of the Chicago Dermatological Society.—Dr. Leon O. Jacobson, associate professor of medicine and associate dean of the division of biological sciences, plans to attend the Sixth International Congress of Radiology in London next July. He will give a paper on "The Therapeutic Use of Radioactive Isotopes." Dr. Jacobson will also attend the meeting of the International Society of Hematology to be held in Cambridge, England, in August, 1950.—Dr. A. C. Bachmeyer, associate dean of the division of biological sciences, was designated president-elect of the American Association of Medical Colleges at the recent meeting at Colorado Springs. Dr. Bachmeyer has been selected by the Governor to serve as a member of the Governor's Commission on the Midcentury White House Conference. The suggestions and plans of this Commission will be forwarded to Washington to the Children's Bureau before the middle of 1950 and the Conference will be held in November or December, 1950.—Dr. Lester R. Dragstedt, chairman of the department of surgery, has been elected treasurer of the International Surgical Society.

Initiate New Course in Radiation Biology.—A new course for senior students in radiation biology has begun at the Chicago Medical School under the direction of Dr. A .R. Goldfarb, of the department of biochemistry. The course, a required one, has a three-fold purpose. First, it prepares the graduate with information concerning radio activity so that he will be of value in case of atomic attack. Secondly, he is being well-founded in new diagnostic and therapeutic methods which are now being developed, and which will be put to considerable use as a science develops. And last, the course has been designed so as to test out methods of teaching radia-

tion biology in a medical school. The students will participate in experimental laboratory work as soon as a radiation laboratory now being set up is completed, and will be given the opportunity to handle radioactive isotopes and accompanying equipment. The new laboratory will contain animal quarters, to keep experimental animals isolated from other animals at the school, and facilities for diluting strongly active materials so that they can be used as experimental material. Included in the project will be a series of research programs, two of which are now under way. One of these, to be under the direction of Dr. Richard G. Roberts, head of the department of biochemistry, and Dr. Goldfarb, pertains to the use of radio-active hemin to aid in the localization of cancer tissue. The other, under the direction of Dr. A. A. Luisada, program director of cardiology, and Dr. Goldfarb, will study new methods of using radioactive salt for determining the rate of flow of blood through the heart and the type of flow, and simultaneously to record the electrical pulsations of heart muscle. This is expected to reveal information of importance in diseases of the heart.

DU PAGE

Library Named for Physician.—A surprise party was held for Dr. E. W. Marquardt, senior surgeon of Memorial Hospital, Elmhurst, recently, to make the dedication of the Marquardt Memorial Library which Dr. Marquardt gave to the hospital. He was presented with an embossed leather book of autographs.

KANKAKEE

Personal.—Dr. George Morrow, superintendent of the Kankakee State Hospital, became assistant superintendent of the Logansport (Ind.) State Mental Hospital, December 1. Dr. Morrow retired November 3 from Kankakee where he had been eleven years.

LA SALLE

Hospital Staff Chooses Officers.—Dr. Jerry DeVries, Ottawa, was named president of the medical staff of the Ryburn-King Hospital, November 10, to succeed Dr. Paul R. Clark, Marseilles. Dr. Elmer Maierhofer, Ottawa, was named vice president and Dr. G. Alan Neufeld, also of Ottawa, secretary. The executive committee members are Dr. L. W. Christian, Dr. M. H. Sawyer, Dr. F. P. Twohey, Dr. S. E. Parr and Dr. D. Raymund Dwyer, all of Ottawa.

LEE

Society Election.—Dr. J. L. Palumbo, Ashton, was chosen president of the Lee County Medical Society, November 10. Other officers are Dr. H. F. McCall, Dixon, vice president and Dr. T. J. Caldarola, Franklin Grove, secretary.

MACON

Fifty Years of Service.—The Macon County Medical Society gave a dinner for Dr. C. Martin Wood, October 18, to mark his completion of fifty years of service in the practice of medicine. He was also presented with the insignia representing his membership in the Fifty Year Club of the Illinois State Medical Society.

MC DONOUGH

Society Election.—Dr. R. G. Trummel, Bushnell, was elected president of the McDonough County Medical Society at a recent meeting. Other officers chosen were Dr. B. H. Borum, Blandinsville, first vice president; Dr. O. A. Dively, Macomb, second vice president; Dr. R. C. Benkendorf, Bushnell, secretary-treasurer; Dr. V. B. Adams, delegate to the Illinois State Medical Society, and Dr. R. C. Millet, alternate, both of Macomb. Dr. Carlo S. Scuderi, Chicago, addressed the society on "Common Fracture Problems in General Practice."

MORGAN

Society News.—Dr. W. C. Scrivner discussed "Common Gynecological Conditions" before the Morgan County Medical Society in Jacksonville, November 10.

PEORIA

Society News.—Dr. Lowell D. Snorf, Evanston, discussed "Recent Advances in Gastroenterology" before the Peoria Medical Society November 15.

New Head of Peoria State Hospital.—Dr. Walter H. Baer, Peoria, former superintendent of the Manteno State Hospital, has been named superintendent of the Peoria State Hospital, effective November 7. He succeeds Dr. Richard J. Graff who is being transferred to the superintendency of the Galesburg State Research Hospital.

POPE

Personal.—Dr. Preston E. Wright has been named medical director of the Quadri-County Health Department with headquarters in Golconda. He had previously served in a similar capacity in Ottawa County in Miami, Oklahoma.

ROCK ISLAND

Society News.—Dr. Fred Fitz, associate professor of medicine, Northwestern University Medical School, addressed the Rock Island County Medical Society, November 8, on "Bacterial Pneumonias."

SANGAMON

Tobert Hill Honored.—Dr. Tobert F. Hill, Athens, was recently chosen as Sangamon County's outstanding physician of the year. According to the Athens Free Press, Dr. Hill has four brothers who are physicians all of whom graduated at Rush Medical College. He has an uncle, Dr. Dan Hill,

who was mayor of Springfield in 1841 and who is credited with being the organizer of Springfield's first Board of Health. In addition to this relationship, Dr. Hill's son is a physician and is serving in the United States Medical Corp.

WINNEBAGO

Society News.—Catherine Curtis, president, Women Investors Research Institute, Washington, D. C., addressed the Winnebago County Medical Society in Rockford, November 18, on "The Washington Scene."

Heart Symposium.—The Winnebago County Medical Society and the Winnebago County Chapter of the Illinois Heart Association held a symposium on Heart Disease in Rockford, November 9. The following speakers appeared on the afternoon program with Dr. C. H. Boswell, Rockford, presiding: Dr. M. O. Alexander, Rockford, "A Review of the Sequence of Events in the Pathology of Myocardial Infarction"; Dr. C. N. Hamlin, Rockford, "The Treatment of Acute Myocardial Infarction"; Dr. Stanley Gibson, Chicago, "Physical Signs in Heart Disease in Children"; and Dr. Don C. Sutton, Chicago, "Angiocardiography in the Adult". Drs. Alexander, Hamlin, Gibson and Sutton and Dr. Robert E. Farrand, Boston, Mass., participated in a panel discussion. The evening speaker was Dr. Farrand who dicussed "A Survey of Current Cardiac Surgery." Dr. William K. Ford, president, Winnebago County Medical Society, presided at the evening program.

GENERAL

Southern Illinois Association Chooses Officers.—Dr. William Walton, Belleville, was elected president of the Southern Illinois Medical Association at the 75th annual convention held in Eldorado November 3. Dr. Robert V. Ferrell, Eldorado, is the retiring president. Other officers elected were: Dr. Kent E. Ellis, Murphysboro, first vice president; Dr. N. A. Thompson, Eldorado, second vice president; and Dr. Gilbert Edwards, Pinckneyville, secretary-treasurer. The association voted to hold its 76th annual convention at Belleville.

Dr. MacEachern Named Director of College of Surgeons.—Dr. Malcolm T. MacEachern of Chicago, associate director of the American College of Surgeons since 1923, has been appointed director effective since October 22 according to an announcement by Doctor Arthur W. Allen, Boston, Chairman, Board of Regents. Dr. MacEachern, chairman of the administrative board of the College since 1935, is also professor of Hospital Administration at Northwestern University, director of the program in Hospital Administration since 1943, and director of the Chicago Institute for Hospital Administrators of the American College of Hospital Administrators.

Dr. Malcolm T. MacEachern is the third director in the history of the American College of Surgeons, the first having been Dr. John G. Bowman from 1915 to 1920, who subsequently became chancellor of the University of Pittsburgh; then, Judge Harold M. Stephens who served as interim director from January to June, 1921, and is now Chief Justice, U. S. Court of Appeals for the District of Columbia.

Dr. Franklin H. Martin, founder of the American College of Surgeons, was director general from 1917 to his death in 1935.

Meeting of Pathologists.—The North Central Region of the College of American Pathologists met jointly with the Illinois Society of Pathologists, December 3, at Northwestern University Medical School to hear the following speakers: Charles Huggins, M.D., Anne Stack Cleveland, Donald Tapley and E. V. Jensen, Ph.D., all of Chicago, on "Advances in Serum Protein Techniques in the Diagnosis of Disease"; M. L. Littman, M.D., New Orleans, La., on "Pathologic Etiologic Diagnoses of Fungus Diseases"; M. G. Westmoreland, M.D., Chicago, "Suggested Contractual Relationships"; R. A. Willis, M.D., London, "Diagnostic Errors Caused by Metastatic Tumors"; and Maurice Lev, M.D., Chicago, on "Autopsy Diagnosis of Congenitally Malformed Hearts."

Health Department Activities.—The Illinois Health Messenger, published by the Illinois State Department of Public Health, announced the following changes in personnel: Dr. Norman J. Rose has been appointed assistant chief of the division of tuberculosis control. Dr. Lamar E. Alford, appointed health officer of the Alexander-Pulaski County Health Department, and Mr. E. L. Wittenborn has been named chief of the division of public health education. Mrs. Margaret B. Cowdin has been reappointed executive secretary of the Illinois Statewide Public Health Committee, a position she once held.—Dr. E. K. Musson has resigned as Peoria city health commissioner to become chief of the communicable disease section of the Chicago board of health.

MARRIAGES

Dr. Mark Pomaranc, Chicago, to Miss Ruth Reis, also of Chicago, recently.

DEATHS

Charles Edwin Bell, Belleville, who graduated at the University of Wisconsin Medical School, Madison, in 1934, died November 20, aged 41, of a heart attack. He was a member of the Radiological Society of North America, the American College of Radiology and he was chief of staff at the Christian Welfare Hospital, East St. Louis.

William H. Brummit, Chicago, who graduated at Meharry Medical College, Nashville, Tenn., in 1904, died September 7, aged 69, of acute coronary thrombosis.

Wallace Cox Converse, retired, Chicago, who graduated at Harvey Medical College, Chicago, in 1896, died October 29, aged 80. He had practiced medicine in Chicago over 50 years.

Joseph de Silva, Rock Island, who graduated at Northwestern University Medical School in 1893, died November 10, aged 80. He was one of the founders of the Rock Island Tuberculosis Sanitarium and a trustee of Joliet penitentiary.

John Andrew Ikemire, Palestine, who graduated at Illinois Medical College in 1904, died December 6, aged 73, following a lingering illness. He was a founder of the Ikemire Clinic in Palestine.

Simeon R. Johnson, Divernon, who graduated at the University of Illinois College of Medicine in 1898, died November 8, aged 75. He had practiced medicine in Divernon for 50 years.

Harry Everett Kirkpatrick, retired, Itasca, formerly of St. Louis, Mo., who graduated at St. Louis University School of Medicine in 1903, died Nov. 3, aged 78, following an illness of several weeks.

David Mansowit, Chicago, who graduated at the University of Illinois College of Medicine in 1931, died in the Albert Merritt Billings Hospital October 17, aged 44. He served during World War II; was affiliated with the Allergy Clinic at Mt. Sinai Hospital and on the staff of the Edgewater Hospital.

Alfred P. Meriweather, retired, St. Jacob, who graduated at Rush Medical College in 1889, died at the St. Joseph Hospital, Highland, November 7, aged 87.

Irving Perlman, Chicago, who graduated at Chicago Medical College in 1929, died November 19, aged 48.

Jordan W. Rose, Chicago, who graduated at Chicago Medical College in 1938, died November 10, aged 39.

Philip F. Shapiro, Chicago, who graduated at Rush Medical College in 1928, died November 14, aged 45. He was formerly clinical associate in surgery at Loyola University School of Medicine.

Robert Russell Smith, Mount Vernon, who graduated at St. Louis University School of Medicine in 1907, died November 16, aged 70. He was a past president and secretary of the Jefferson-Hamilton County Medical Society, and former superintendent of state hospitals in Kankakee and Alton.

Alexander Fraser Stewart, retired, Galesburg, who graduated at Rush Medical College in 1894, died November 21, aged 81.

Joseph Rush Tanner, Chicago, who graduated at Meharry Medical College, Nashville, Tenn., in 1921, died September 15, aged 50, of cerebral vascular accident and hypertension.

Frank Alter Zibelman, Chicago, who graduated at Chicago College of Medicine and Surgery in 1917, died November 18, aged 56.

CORRECTION

The Illinois Medical Journal, November, page 334, erroneously stated that Frederick Daird Culbertson graduated at The Hahnemann Medical College and Hospital of Chicago in 1906. The late Dr. Culbertson graduated at Northwestern University Medical School in 1906.

"For The Common Good"

Televised Health Talk Marks First Anniversary.— With its December 14 telecast, the Educational Committee completed its first year on television over WGN-TV. Dr. Clayton Loosli, professor of preventive medicine, University of Chicago School of Medicine, was the participant and Theodore R. Van Dellen, moderator. The subject was "The Common Cold." Visual emphasis was given to the telecast by means of slides and motion picture film. While this program marked the first anniversary of weekly telecasts on health education over WGN-TV, the first program of this nature was given over WBKB, October 9, 1948.

The Chicago Daily News, December 6, cited the weekly series as one of the outstanding programs on television.

Since the last Illinois Medical Journal, the following telecasts have been given:

Louise Tavs, University of Illinois College of Medicine, on Cosmetics and You, November 23. This telecast was enhanced with four models who demonstrated application of creams, types of soap and other procedures in cosmetic make-up, while Dr. Tavs explained the function and real care of the skin.

John Mart, Northwestern University Medical School, November 30, So You've Had a Heart Attack. This telecast was unique in that it was the first fluoroscopic demonstration of a living heart ever attempted for public viewing from a studio. Heart sounds were amplified to synchronize with the beating heart. The Standard X-Ray Company and the Cambridge Instrument Company cooperated in the telecast by making all necessary equipment available and in working with the WGN-TV studio engineers in perfecting the demonstrations.

James J. Callahan, Stritch School of Medicine of Loyola University, December 7, So You've Broken a Hip. This telecast showed the procedures taken in applying a splint and traction and the use of a traction bed. The Zimmer Splint Company and the William Ballert Company cooperated in providing the essential equipment. A "patient" simulated perfectly the position of a broken hip and demonstrated the protective splint.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

D. A. Dukelow, Woman's Auxiliary, South Chicago Branch, Chicago Medical Society, December 5, What School Health Means to You.

Alex J. Arieff, North Side Auxiliary, Chicago Medical Society, December 6, on Psychiatric Aspects of Everyday Offenses Against Society.

Winston H. Tucker, Evanston, Chicago Camping Association, December 10, on Environmental Factors on Camps.

Richard Young, John J. Sheinin, Harry M. Hedge, John T. Reynolds, Donald G. Anderson, Lowell T. Coggeshall and James J. Smith, all in separate sessions on "Medicine as a Career" in the Chicago Area Career Conference, sponsored by Chicago Technical Societies Council, Chicago Sun Times and the Illinois Institute of Technology, December 27-29.

Joan Fleming, Chicago, Mental Hygiene Section, Illinois Federation of Women's Clubs, Jaunary 9, moderator of film A Feeling of Hostility.

Herbert McMahan, Manteno, Watseka Community High School, and Kiwanis Club in Watseka January 9, on Alcoholism.

Groves B. Smith, Godfrey, Litchfield Woman's Club, February 6, on Mental Health Responsibilities on the Part of Community Organizations.

Frederic T. Jung, Physicians Fellowship Club Auxiliary in Chicago, February 10, Superstitions About Health.

G. J. Kidera, Berwyn, Hollywood Woman's Club, February 10, in Hollywood, on Superstitions About Health.

Arthur Rosenblum, Mental Hygiene Section, Illinois Federation of Women's Clubs, February 13, on The Emotionally Disturbed Child.

Harold M. Camp, Woman's Auxiliary, Chicago Medical Society, February 14, on The Medical Benovolence Fund: Its Functions and Financing.

Robert M. Karl, Woman's Auxiliary, Chicago, February 14, Present Trends in Nutrition Research.

Jules Masserman, Southlawn's Woman's Club in Chicago, February 10, on Growing Old Gracefully.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society:

Willard O. Thompson, Effingham County Medical Society in Effingham, January 10, on Uses and Misuses of Sex Hormones.

Philip Thorek, Whiteside and Lee Counties Medical Society, in Rock Falls, Sterling, January 12, on Pre and Postoperative Therapy in Abdominal Surgery.

James Hutton, Stock Yards Branch, Chicago Medical Society, January 10, on Hypotension.

Felix Tornabene, Aurora, La Salle County Medical Society, February 9, in La Salle, Acute Meningitis and Its Management.

Armand J. Mauzey, Chicago, Logan County Medical Society in Lincoln, February 16, on Sterility Problems.

Joseph N. Rappaport, Evanston, Henry County Medical Society in Kewanee, March 9, on Behavior Problems in Early Childhood.

NEW YORK RANKS FIRST IN HOSPITAL FACILITIES FOR POLIO

The number of hospitals in the state of New York admitting poliomyelitis patients for treatment is nearly twice that in any other state, a nationwide survey of 6,276 American Medical Association registered hospitals shows.

The survey was completed by the A. M. A.'s Council on Medical Education and Hospitals at the request of the National Foundation for Infantile Paralysis, according to a report of the council in the Nov. 19, Journal of the American Medical Association.

Statistics for 1947 of the 1,243 hospitals which reported that polio patients are accepted for treatment reveal that 146 of these hospitals are in the state of New York.

Texas ranked second with 76 hospitals admitting polio patients for treatment, and Illinois third with 70 hospitals. Pennsylvania and California followed with 62 and 59, respectively.

On the basis of control, 181 of the 1,243 hospitals are listed as federal hospitals, 294 under state, city or county control, 688 as church or other nonprofit associations, and 80 as proprietary hospitals.



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1. J.A.M.A. 139:398 (Feb. 5) 1949

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*Downing, J. G. et al.: *Use of 5-Nitro-2-Furaldehyde Semicarbazone in Dermatology,* J. A. M. A. 133:299, 1947 • Shipley, E. R. et al.: *Clinical Observations on Furacin Soluble Dressing in the Treatment of Surface Infections,* Surg., Gynec. & Obst. 84:366, 1947 • McCollough, N. C.: *Treatment of Infected War Wounds with a Nitrofuran,* Indust. Med. 16:128, 1947 • Wawro, N. W.: *Newer Aspects of the Palliative Treatment of Cancer,* Connecticut State M. J. 12:17, 1948.

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Experientia

PHYSICAL MEDICINE ABSTRACTS



PREDICTON OF UNEQUAL GROWTH OF THE LOWER EXTREMITIES IN ANTERIOR POLIOMYELITIS

Allan J. Stinchfield, M.D., John A. Reidy, M.D., and Joseph S. Barr, M.D., Boston, Mass. In JOURNAL OF BONE AND JOINT SURGERY, 31-A:3:478, July, 1949.

Of 166 adults in whom poliomyelitis developed before the age of eleven, varying degrees of muscle power and shortening were present in the lower extremities. There was no specific relationship between the age of onset and the amount of discrepancy in limb length. There was, however, a definite relationship between the relative muscle strength in the two extremities and the discrepancy in limb length. These data may be utilized clinically in predicting the amount of shortening that will occur in a patient having poliomyelitis before the age of eleven.

FIBRO-FATTY TISSUE AND ITS RELATION TO CERTAIN "RHEUMATIC" SYNDROMES

W. S. C. Copeman, M.A., M.D., F.R.C.P. In BRITISH MEDICAL JOURNAL, No. 4620, p. 191, July 23, 1949.

It is thought that an etiological classification, although desirable in the case of a "disease entity," must remain impracatible in the case of a syndrome. The classical conception of fibrositis is briefly reviewed, and a classification based upon the structure of the nodules found at the source of the pain is tentatively proposed.

Evidence is produced that the fat tissues of the body are subject to pathological variations which cause pain. This pain is generally labelled as "rheumatic" or "fibrositic." When this occurs in the neighborhood of joints the condition often is wrongly termed arthritic.

It has been shown that several recognizable "rheumatic" syndromes can be the result of an abnormal retention of fluid by fat lobules in certain situations. When this occurs they endeavor to swell, but, being confined by indistensible fibrous tissue, they are unable to do so, and tension pain results. This edema shows no sign of being inflammatory in nature.

In some such cases a flaw occurs in the fibrous covering, resulting in herniation of the enclosed fat lobule into an adjoining layer. Such herniations may be of three types, which are described.

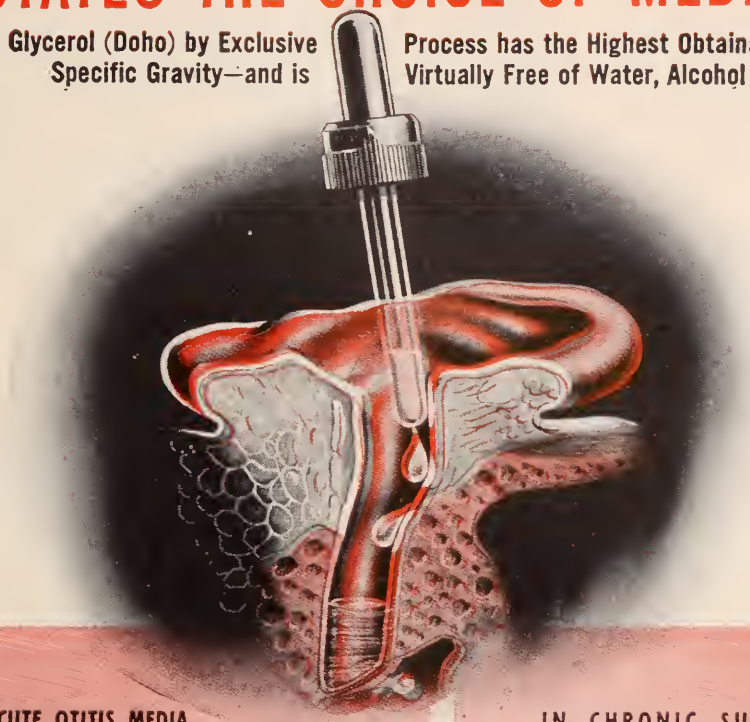
The origin of this selective swelling probably is endocrine. The direct effect of cold may unmask it.

The syndromes described as being due to this abnormality of fat are: (a) "Fibrositis," which occurs in any of the several normally occurring fat-pads which are described, and (b) panniculitis, which occurs in abnormally deposited fat, mostly in predictable sites. Panniculitis may occur with or without general obesity. In either case the chief sites of pain tend to remain

(*Continued on page* 44)

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Glycerol (Doho) by Exclusive Specific Gravity—and is Process has the Highest Obtainable Virtually Free of Water, Alcohol and Acids



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REMOVAL OF IMPACTED CERUMEN

AS AN ADJUNCT TO SYSTEMIC ANTI-INFECTIVE THERAPY, AS PENICILLIN, ETC.

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...because its potent decongestant, dehydrating and analgesic action provides quick, efficient relief of pain and inflammation in any intact drum involvement.

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...a potent chemical combination *(not a mere mixture)*, combining Sulfathiazole and Urea in AURALGAN Glycerol (DOHO) Base—because it exerts a powerful solvent action on protein matter, liquefies and dissolves exuberant granulation tissue, cleanses and deodorizes, and tends to exhilarate normal tissue healing in the effective control of chronic suppurative otitis media.

FORMULA:

Urea	2.0 GRAMS
Sulfathiazole.....	1.6 GRAMS
Glycerol (DOHO) Base.....	16.4 GRAMS

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DOHO CHEMICAL CORP.—Makers of AURALGAN and O-TOS-MO-SAN NEW YORK 13

similar. Adiposis dolocsa (Dercum's disease) would appear to be only a quantitive variation of this combination.

Treatment must be directed concurrently along several lines if success is to be achieved. Those discussed include diet, endocrineal, diuresis and dehydration, local injections, physical therapy, surgery.

The indications for surgery are limited but tend to afford dramatic relief. These are the removal of irreducible fat hernias, and to a smaller extent removal of localized areas of painful tissue in severe cases of panniculitis.

JOINT MANIPULATION IN REHABILITATION

R. J. Talbot, F.R.C.S. Ed., D.Phys. Med., Director, Department of Physical Medicine, Hillingdon Hospital, Uxbridge, Middlesex. In THE BRITISH JOURNAL OF PHYSICAL MEDICINE, 12:3:62, May-June 1949.

A frequently employed physical method in rehabilitation from disease or injury is movement by joint manipulation. Its object is the restoration of the full anatomical range of movement to any joint which is either directly or indirectly restricted. Joint manipulation entails the use of scientifically applied force to secure a range of movement greater than that obtainable by the patient's voluntary action. Such manipulation is to be distinguished from manipulation for reduction of dislocation or for setting a fractured bone, but, similarly, it should be performed by qualified medical personnel.

Manipulation is an aid to other physical measures which must both procede and follow manipulation. The early and adequate application of these measures reduces the necessity for joint manipulation, particularly in the acute phase of chronic arthritis and trauma. Neglect renders manipulation the more necessary.

Manipulation may be divided into two types, major and minor. *Major manipulation* is employed in chronic traumatic and disease conditions when great restriction of movement exists, and when response to minor manipulations follow this operation. *Minor manipulations* are adopted when a gradual stretching of shortened structures is required, as in cases of disuse, con-

(*Continued on page* 48)

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INDICATIONS: Natural and surgical menopause, functional amenorrhea and dysmenorrhea, suppresion of lactation.

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Conjugated estrogens equivalent to oral activity of
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Sodium Estrone Sulfate 0.625 mg.

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Thiamine hydrochloride	3 mg.	Calcium pantothenate	5 mg.
Riboflavin	2 mg.	Ascorbic acid (Vitamin C)	25 mg.
Niacinamide	10 mg.	Vitamin D	500 I. U.

SUPPLIED: Bottles of 20, 100, and 500 SEStramin tablets.

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Leaves the cough reflex he needs





In the average case, it's usually possible to control the patient's cough—but often it's a real problem to do it without impairing the cough reflex he needs to keep bronchioles and throat passages clear. That's where you'll find pleasant-tasting Mercodol unique!

For Mercodol contains the cough-controlling narcotic[1] that gives better antitussive action than codeine or heroin, yet keeps beneficial cough reflex . . . a superior bronchodilator[2] to relax plugged bronchioles . . . an effective expectorant[3] to liquefy secretions. And you'll find Mercodol notably free from nausea, constipation, retention of sputum, and cardiovascular and nervous stimulation.

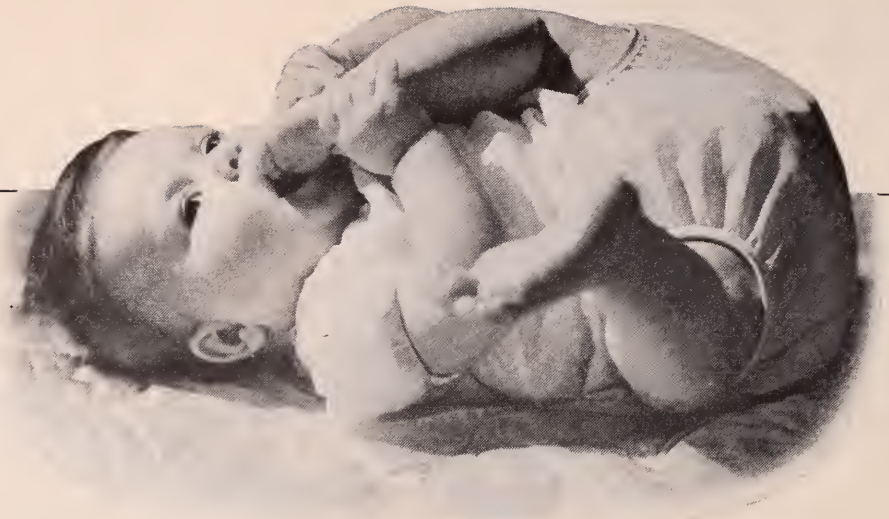
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The common complaints of infancy—anorexia, undernourishment, slowness of weight gain, propensity to infection—are less frequently encountered when White's Multi-Beta Liquid is part of the infant's diet routine.

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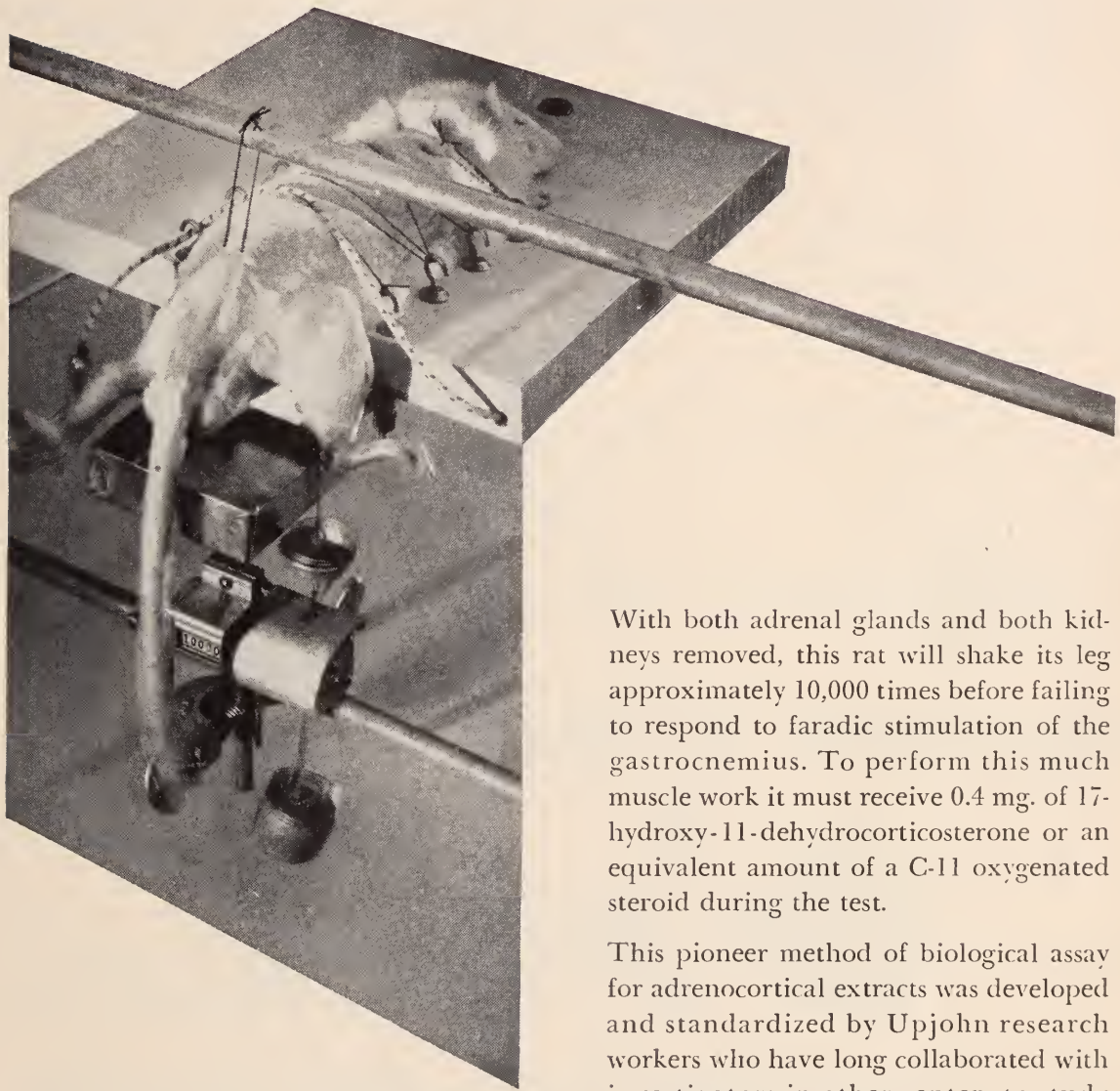
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With both adrenal glands and both kidneys removed, this rat will shake its leg approximately 10,000 times before failing to respond to faradic stimulation of the gastrocnemius. To perform this much muscle work it must receive 0.4 mg. of 17-hydroxy-11-dehydrocorticosterone or an equivalent amount of a C-11 oxygenated steroid during the test.

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tracture, cicatrization, prolonged immobilization or in soft-tissue lesions.

General principles.—All joint manipulations conform to certain principles, which are as follows:

(1) To secure greater movement of the joint with the patient relaxed, by employing gentle passive force beyond the range obtainable actively by the patient.

(2) To protect manually the component bones and ligaments of the joint.

(3) To apply a degree of traction of the distral upon the proximal bone or bones of the joint.

(4) To limit movement to the anatomical range of that joint.

(5) To overcome the obstruction encountered, by means of a deft, well-practiced increase of force.

(6) To cease applying force when "give" has occurred and the full range in the desired direction has been obtained.

(7) To advance movement only when complete relaxation is present.

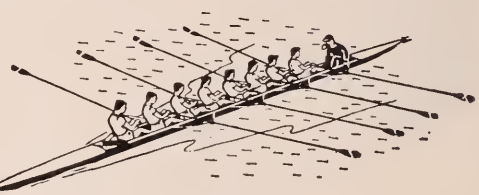
WHAT CAN THE GENERAL PRACTITIONER DO FOR THE NERVOUS PATIENT?

W. C. Alvarez, M.D. In IOWA STATE MEDICAL SOCIETY JOURNAL, 39:1-42, January 1949.

Alvarez shows that although the family physician frequently is helped in making a diagnosis by knowing the patient and his background, the average physician does not think often enough of a neurosis. Physicians sometimes fail to recognize a neurosis among their own relatives. The author deplores that professors in medical schools are much too inclined to neglect the neuroses and to demonstrate in the amphitheater examples of only the most rare and bizarre organic diseases. The teacher should remember that his students will rarely, if ever, see or recognize one of these diseases. What they will see every day will be nervous men and women with negative reactions to tests and all sorts of distress everywhere: backaches, headaches, dysmenorrhea, flatulence, fatique and lack of energy. One of the bad features of medical practice today is that physicians so often try to diagnose neurosis only by exclusion. A patient is put through all the

(*Continued on page 52*)

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WITH Solanital Dorsey

SEDATIVE-ANTISPASMODIC

As a sedative-antispasmodic, Solanital exceeds in therapeutic effectiveness even much larger doses of any of its component drugs. Synergistic action among the properly proportioned alkaloids produces *more comprehensive and lasting relief*, while minimizing the side effects of any single ingredient.

Thus the concerted action of several drugs makes Solanital a highly effective agent for antispasmodic and sedative therapy in:

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Solanital is often effective also in alcoholism and delirium tremens, menopausal disturbances of spastic nature, parkinsonism, and for prevention of sea, car or air sickness.

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EACH FLUID OUNCE ELIXIR CONTAINS:

Phenobarbital	2 gr.
Extract Hyoscyamus	1/2 gr.
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Hyoscyamine Sulfate	1/200 gr.
Atropine Sulfate	1/130 gr.
Scopolamine Hydrobromide	1/400 gr.
Alcohol	20%

Supplied in Pints and Gallons

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Early vigorous treatment of diabetes increases the patient's chances for longevity. One million diabetics remain undetected in the United States.* The diabetic must be detected before it is "*too late.*" ***Selftester***—for the general public, is a simple home test for the detection of urine-sugar. Its purpose is to help discover the hidden diabetic and bring him to the physician for adequate care.



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A well-controlled diabetic is less susceptible to infection and acidosis. The incidence of vascular complications, retinitis, gangrene, and renal intercapillary glomerulosclerosis is reduced with vigorous control. "*Too little*" is the symbol of inadequate control.



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Clinitest (Brand) Reagent Tablets dispense with external heating and cumbersome laboratory apparatus in the detection of urine-sugar. The tablets provide a simple, rapid, inexpensive method for adequate diabetic control resting upon the cardinal principles of diet and insulin administration guided by the urine-sugar level.

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*Joslin, E. P., Postgrad. Med.: 4:302 (Oct.) 1948.
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for emotional equilibrium in the menopause

BENZEBAR* not only frequently alleviates the depression you see in menopausal patients, but also the nervousness.

'BENZEBAR' is a logical combination of Benzedrine* Sulfate and phenobarbital. Thus, it provides the unique improvement of mood characteristic of 'Benzedrine' Sulfate and the mild sedation of phenobarbital. These two established agents work together to stabilize the patient's emotions and to restore her zest for life and living.

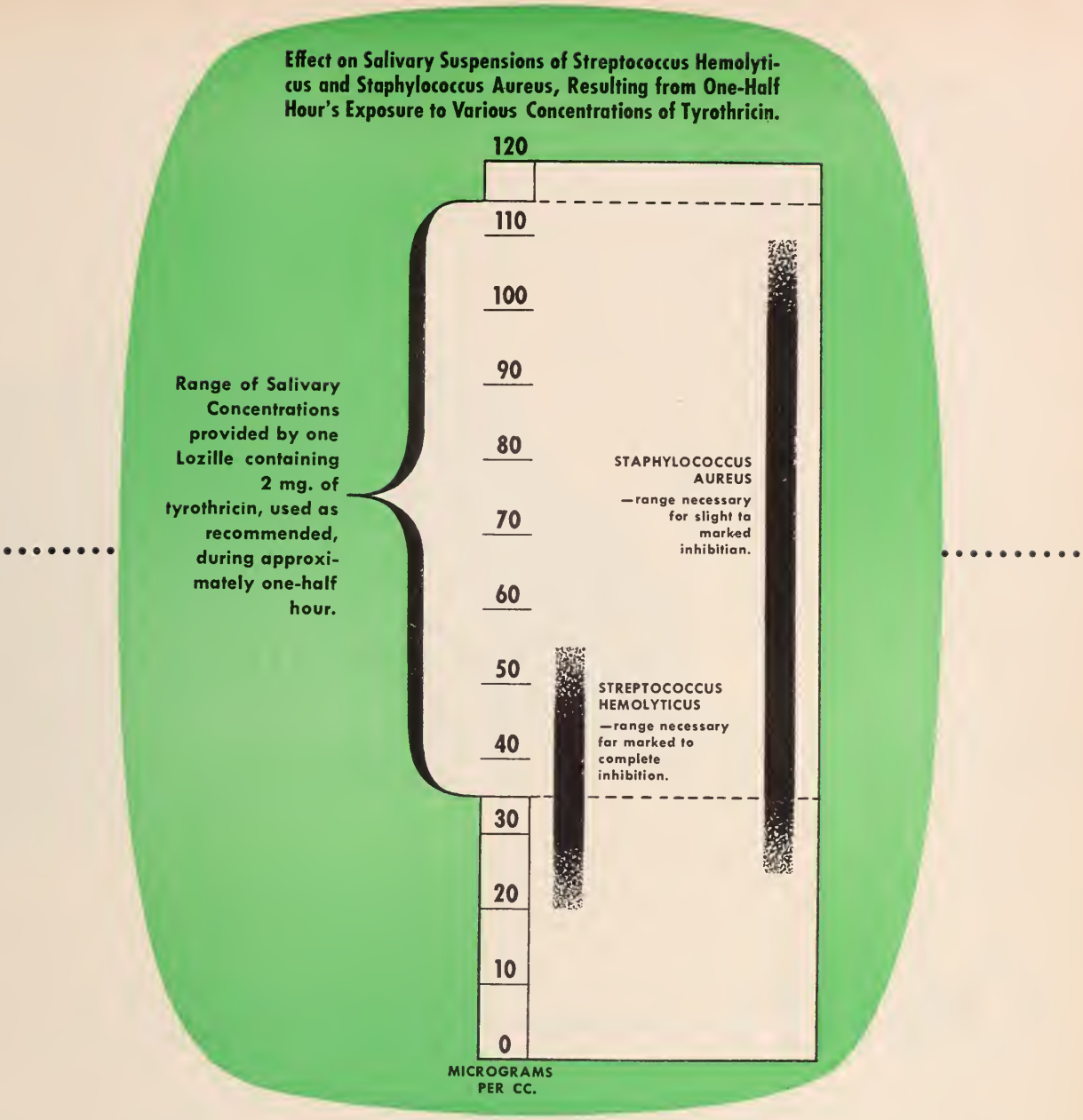
Each 'Benzebar' tablet contains: 'Benzedrine' Sulfate, N.N.R. (racemic amphetamine sulfate, S.K.F.), 5 mg.; phenobarbital, ¼ gr. *Smith, Kline & French Laboratories, Philadelphia*

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Effective Salivary Levels of Tyrothricin

Used as recommended, one Lozille maintains for approximately *one-half hour* salivary tyrothricin levels as shown in chart.

The sustained salivary concentrations insure broad antibacterial action against gram-positive organisms responsible for acute oropharyngeal infections.

Tyrothricin, unlike topical penicillin, is remarkable for its *lack of local toxicity*. Pleasant-tasting, Lozilles also provide propesin, for non-toxic, long-lasting analgesia.

Each Lozille contains *2 mg.* of tyrothricin and 2 mg. of propesin. Supplied in vials of 15 Lozilles.

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tests, and if negative reports are obtained, a neurosis is diagnosed. The disadvantage of this procedure is that in tests slight abnormalities maybe disclosed which have nothing to do with the illness, but which satisfy the examiner and lead him to conclude that the diagnosis is made; the real disturbance, however, goes on unrecognized and unrelieved. The author warns against trying to make a diagnosis from one test and against placebos of diagnosis such as low blood sugar, low blood calcium, floating kidney and the like. The way the history is told frequently differentiates the patient with organic lesions from the nervous patients in whom the disorder is functional. The author cites syndromes that are always functional in nature, giving particular attention to migrainous disorders, and to gastrointestinal distress not related to meals or defecation.

ON THE SIGNIFICANCE OF THE NORMAL ELECTROCARDIOGRAM IN OLD AGE

Theodore T. Fox, M.D., New York City. In ANNALS OF INTERNAL MEDICINE, 31:1:120, July, 1949.

One hundred inmates of an institution for the aged showing normal electrocardiograms were followed for a period of seven years. By the end of the second year, 22 cases were found to have abnormal electrocardiagraphic tracings. By the end of the fourth year, 36 cases possessed abnormalities in the electrocardiograms. By the end of seven years 47 inmates had abnormal changes in the electrocardiogram. In evaluating the significance of the abnormal tracing the related factors considered were age, the level of blood pressure and the presence of heart enlargement. It became apparent that while the occurrence of the abnormal electrocardiogram in senescence has a prognostic significance, it is the presence of heart enlargement that is a more determining factor of the life span of the aged individual.

DISABLEMENT

Editorial. In THE BRITISH JOURNAL OF PHYSICAL MEDICINE, 12:4:85, July-August 1949.

Adverse outside factors beyond the control of the disabled are: (1) erroneous vocational

(*Continued on page* 54)

Octin - *for Relief of Smooth Muscle Spasm*

Octin is an antispasmodic with both neurotropic and musculotropic action indicated for the treatment of smooth muscle spasm, particularly in spastic conditions of the genitourinary and gastrointestinal tracts. It acts promptly and the relaxation usually lasts three to five hours.

DOSE: Orally, one tablet (2 grains Octin mucate) every three to five hours.

Intramuscularly, ½ to 1 cc. (1 cc. ampule, 0.1 Gm., Octin HCl.) every three to four hours.



Octin, methylisooctenylamine, Trade Mark Bilhuber.

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Ethical prescriptions for Koromex Jelly and Koromex Cream written by alert physicians attest to the value of these pertinent and important time-tested factors... instantly spermicidal on contact... adjusted viscosity eliminates leakage... compatible with vaginal flora... adhesiveness and cohesiveness provides dependable film barrier.

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ACTIVE INGREDIENTS: BORIC ACID 2.0%, OXYQUINOLIN BENZOATE 0.02% AND PHENYLMERCURIC ACETATE 0.02% IN SUITABLE JELLY OR CREAM BASES.

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Physical Medicine (Continued)

guidance; (2) employment in unsuitable jobs, especially inferior jobs; (3) unsatisfactory management at their place of employment.

With a few exceptions, in a group recently studied by Wittkower, all the patients who had had amputations were in employment at the time of examination. A high proportion of men who had been skilled manual workers changed over to clerical occupations after their disablement. Their tendency to give up their skilled jobs was generally not warranted by the type of their disability.

Roughly 50 per cent of the men who had lost a leg were in occupations which required long standing (for example, fitters, welders and assemblers), or walking and car-driving (for example, factory inspectors, salesmen, and roundsmen) or even heavy lifting (for example, stokers and railway porters). About 33 percent of those who had lost an arm were in occupations which required great manual skill, for example, as fitters and welders. About 66 per cent of the maimed were satisfied with their employment. Those who were dissatisfied complained that their occupations were too strenuous, were only temporary, were too monotonous, or did not give them enough scope or chance of promotion.

THE STUDY OF PERIPHERAL VASCULAR DISEASE WITH RADIOACTIVE ISOTOPES: PART II

F. W. Cooper, Jr., M.D., Daniel C. Elkin, M.D., Patrick C. Shea, Jr., M.D., and E. W. Dennis, B.S. In SURGERY, GYNECOLOGY AND OBSTETRICS, 88:6:711, June 1949.

The introduction of the use of radioactive isotopes in the study of peripheral vascular disease has made possible the critical evaluation of the circulation in the tissues of the extremities. Although all methods of instrumental investigation have certain inherent weaknesses, they contribute a valuable addition to the clinical evaluation of vascular disorders. Studies on the circulation in the muscles of the extremities in normal individuals and those with vascular diseases have made possible a more objective evaluation of the patient.

By measuring the rate of disappearance of radioactive sodium chloride from the muscles of an extremity, an additional method of evaluating

(Continued on page 56)

by every clinical criterion

a better, more rational cough therapy



In Robitussin 'Robins', *glyceryl guaiacolate* (reported to exert the most intense and prolonged action of all expectorants[1,4]) has been united with the adrenergic stimulant, *desoxyephedrine* (to relax bronchioles[3] and improve the patient's mood and sense of well-being[2]), in an aromatic, syrupy vehicle. Thus, in welcome contrast to the older empirical approach, Robitussin is highly rational and effective, yet non-toxic and non-narcotic. It helps make expectoration easier and freer—and eases dry, irritating cough.

INDICATIONS: Acute head and chest colds, bronchitis, laryngitis, tracheitis, pharyngitis, pertussis, influenza, measles, etc.; also helpful as a palliative of harmful cough in tuberculosis, chronic paranasal sinusitis, tobacco cough.

COMPOSITION: In each 5 cc. (1 teaspoonful) of palatable aromatic syrup: glyceryl guaiacolate, 100 mg., and desoxyephedrine hydrochloride, 1 mg.

DOSAGE: *Children:* One half to one teaspoonful according to age, three or more times daily. *Adults:* One or two teaspoonfuls as necessary, every two or three hours.

REFERENCES:

1. Connell, W. F. et al.: Canadian M.A.J., 42:220, 1940.
2. Foltz, E. E. et al.: J. Lab. & Clin. Med., 28:603, 1943.
3. Novelli, A. and Tainter, M. L.: J. Pharmacol., 77:324, 1943.
4. Perry, W. F. and Boyd, E. M.: J. Pharmacol. Exper. Therap., 73:65, 1941.

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To facilitate productive cough

. . . to minimize harmful cough

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the wide-angled approach in



arthritis therapy

With the growing concept of arthritis as a "systemic disease with joint manifestations,"[1] most clinicians today appreciate that constipation and common gastrointestinal dysfunctions are "not only susceptible of betterment but should be included in any wide-angled approach to the [arthritis] problem."[2] Which is why Occy-Crystine is more and more utilized for its dependable (yet non-irritant) cathartic and cholagogue action.

Composition: Occy-Crystine is a hypertonic solution of pH 8.4, made up of the following active ingredients — sodium thiosulfate and magnesium sulfate, to which the sulfates of potassium and calcium are added in small amounts, contributing to the maintenance of solubility.

References

1. American Committee for the Control of Rheumatism, Pemberton, R.: Rev. Gastroenterol., 9:91, 1942.
2. Spackman, E. W. et al: Am. J. M. Sci., 202:68, 1941.

OCCY-CRYSTINE LABORATORY • Salisbury, Connecticut

occy-crystine

the sulfur-bearing saline eliminant

Physical Medicine (Continued)

the circulatory physiology of the extremities has been made possible.

In the study of 57 normal individuals and 102 patients with peripheral vascular disturbances, curves representing the rate of disappearance of the sodium from the muscle form statistically accurate patterns.

It is believed that this method of study may offer a valuable aid in the evaluation of certain forms of therapy which are believed to enhance the circulation.

THE HEATING OF HUMAN AND ANIMAL TISSUES BY MEANS OF HIGH FREQUENCY CURRENT OF 12 CMS. WAVELENGTH (THE MICROTHERM)

Stafford L. Osborne, Ph.D., and Jesse N. Frederick, B.A., M.S. In QUARTERLY BULLETIN OF NORTHWESTERN UNIVERSITY MEDICAL SCHOOL, 23:2:222, Summer 1949.

Microwave radiations were applied to the thighs of dogs and temperature measurements made subcutaneously, and at one-half inch intervals to a depth of 2 in. Following exposure to high frequency energy the maximum temperature was observed in the subcutaneous level and decreasing temperatures found with increasing depth. The average temperature at a depth of 2 in. of ten experiments using the 6-inch hemispherical director at a spacing of one inch from the skin surface was 104.1 F.

In seven acute experiments on dogs the eye was exposed to microwave treatment. The average temperature of the vitreous humor following microwave treatment was 105.8 F. One animal received a series of six treatments over a period of three weeks. There was no evidence of damage to the eyes or contiguous tissues.

Six experiments were performed in which the frontal sinus of the dog was exposed to microwave radiations. The average of the temperatures of the frontal sinus following exposure to the microwave was 105.1 F.

In twenty-four experiments on human subjects the thigh was exposed to microwave radiation. The average temperature at a depth of approximately 2 in. immediately following microwave irradiation was 104.2 F. One small

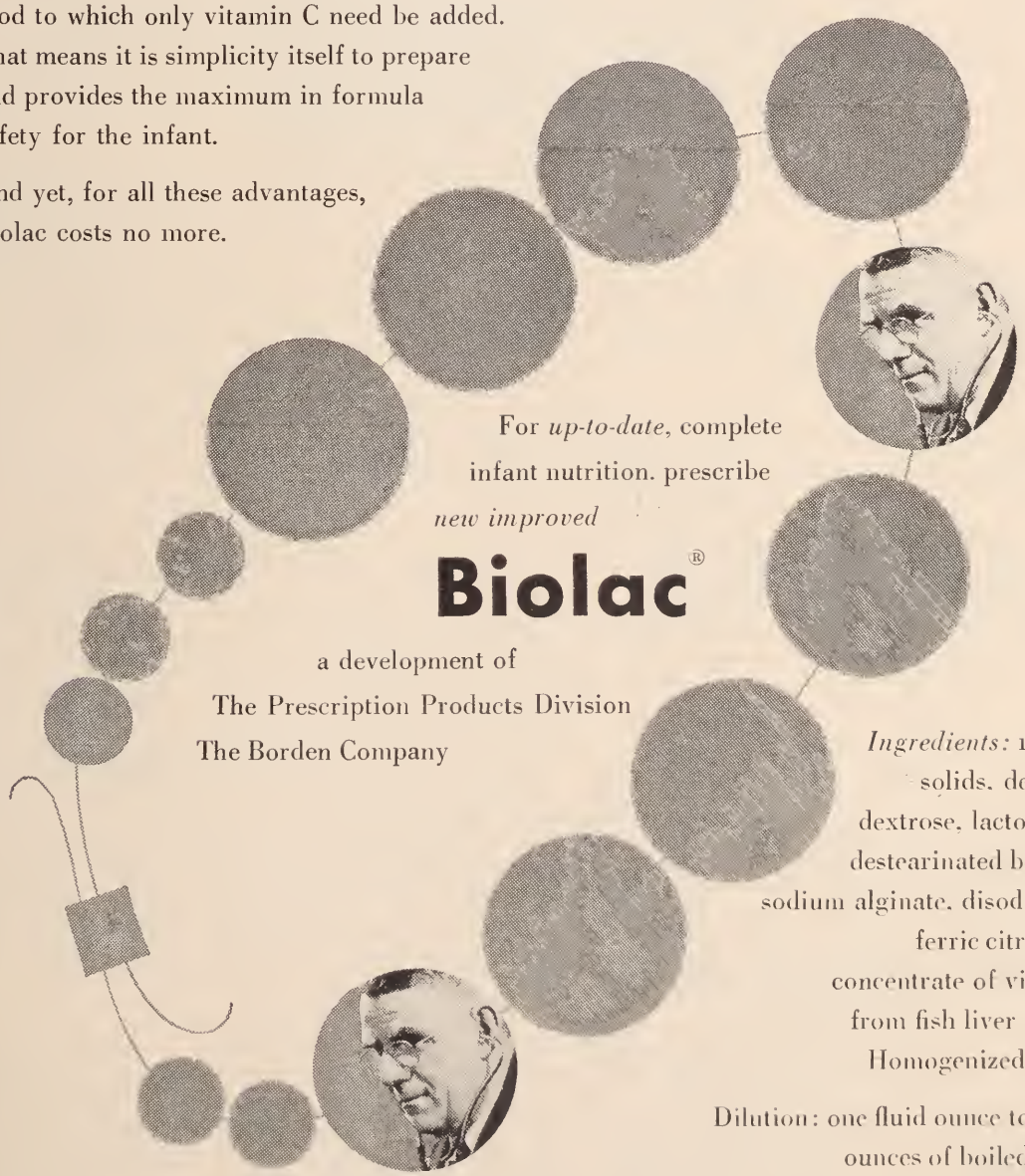
(Continued on page 58)

more physicians are satisfied

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Biolac is intended for prescription by every physician with infants among his patients. It satisfies the physician's demand for a complete food to which only vitamin C need be added. That means it is simplicity itself to prepare and provides the maximum in formula safety for the infant.

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For *up-to-date*, complete infant nutrition, prescribe *new improved*

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Ingredients: nonfat dry milk solids, dextrins-maltose-dextrose, lactose, coconut oil, destearinated beef fat, lecithin, sodium alginate, disodium phosphate, ferric citrate, vitamin B_1, concentrate of vitamin A and D from fish liver oils, and water. Homogenized and sterilized.

Dilution: one fluid ounce to one and a half ounces of boiled water for each pound of body weight.

Biolac is available in 13 fluid ounce tins.

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Physical Medicine (Continued)

superficial blister was produced. By the tenth day the blister had disappeared. The treatments were comfortable to the patients and a minimum of erythema was noted. Microwave treatment should be applied cautiously because the minimum of erythema and discomfort to the patient gives the operator less warning of overheating. The limitations of the localized heating by this method have been pointed out.

PAINFUL AMPUTATION STUMPS AND PHANTOM LIMBS: TREATMENT BY REPEATED PERCUSSION TO THE STUMP NEUROMATA

W. Ritchie Russell, M.D., F.R.C.P. In BRITISH MEDICAL JOURNAL, No. 4614, p. 1024, June 11, 1949.

The otherwise intractable pains and jactitations which sometimes occur in amputation stumps and phantom limbs may be abolished by repeated percussion of, or pressure on, the stump neuromat.

Repeated treatment by hammering or by a mechanical vibrator has proved to be highly successful in all of seven cases treated.

During treatment many interesting sensations appear in the phantom.

Streptomycin suppresses but does not kill tubercle bacilli in the human body. Hence we cannot and must not think of streptomycin as a definitive, all-sufficient treatment. It must fit into the over-all strategy of treatment, and it complicates, rather than simplifies, the task of the physician. It is necessary to know not only whether or not to use streptomycin but also when to use it, because often it can be used only once. Each time it is used, there is a possibility of altering the bacterial population so that only drug-resistant bacteria remain. If a more serious tuberculous complication develops later, recourse to streptomycin might then be useless. H. Corwin Hinshaw, M.D., Nat. Tuberc. A. Tr., 1948.

The store had been in the Jones family for generations, so when a notice, "Under New Management," appeared in the window, the villagers waited curiously the coming of the new proprietor. Days passed and Jones still was behind the counter, and the notice still prominently displayed. Then one bolder spirit asked him when the new people were coming in.

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BOOK REVIEWS



Atlas of Peripheral Nerve Injuries: William R. Lyons, Ph.D., Barnes Woodhall, M.D. W. B. Saunders Company. 399 pages. $16.00.

This volume is in every sense of the word an ATLAS. The volume represents the statistics from approximately 13,000 peripheral nerve operations ot which about 1,000 were carried out in the Walter Reed and Halloran General hospitals. The historical data, stained tissue, paraffin blocks, gross specimens and other material from several hundred selected cases have been deposited in the Army Medical Museum as Accession No. 110822. This Accession will make possible correlation with neural regeneration in the Peripheral Nerve Registry. The Accession will thus be available to all future students and is a permanent record of neuro-surgery of World War II.

A very extensive terminology is included so that there is no question of doubt as to what they mean when a certain term is mentioned. Considerable value is attached to the Tinel sign, or distal tingling upon percussion.

94.4% of total injuries were caused by battle wounds; 4.8% by accident injury and in 0.8% the cause was unknown or unreported. 59.0% of total injuries were due to small arms fire.

A summary of the changes in a denervated extremity is directly related to the determination of the optimum time for nerve repair.

The volume is magnificently endowed with plates showing figures of photographs, patients, x-rays, specimens, histologic specimens, etc. Even with complete mobilization and maximal resection it is never possible to excise every last bit of pathologically altered tissue before suturing nerve ends. When it was necessary to decide whether the resection of another 5 mm. should be done proximally or distally it was usually decided in favor of the distal stump. Furthermore, it was seldom possible to resect far enough in both directions to secure ends ideally suited to each other.

Epineural changes showed that a properly constructed tantalum sleeve placed around the severed nerve stump at the time temporary suture served useful purposes.

In the case of a distal stump the surgeon must resect scar tissue to a level at which fascicles and tubules are present: whereas in the case of a proximal stump at least three zones having distinct histologic patterns will be encountered.

A classification is suggested for traumatic nerve lesions in continuity.

Foreign body inclusions are interesting and explained in detail.

In the distal segment as radical a resection as would be compatible with final suture without excessive tension is necessary.

There are many incidences of associated nerve and vascular lesions. The functional repair of these fistulae lies in the development of a collateral circulation requiring three to four months and corresponds to the optimum time for nerve repair.

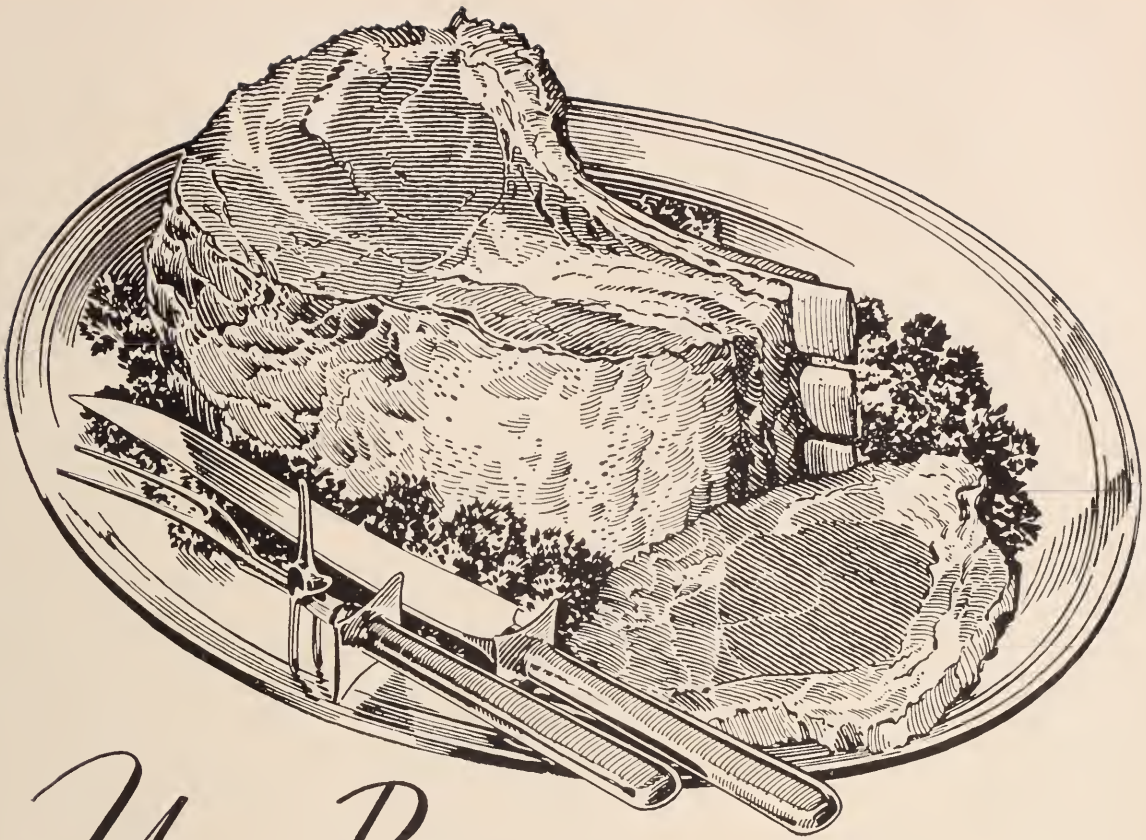
There are three periods available for definitive repair of peripheral nerve injury.

1. Wound debridement and nerve repair with immediate or delayed skin closure.
2. Wound debridement and subsequent nerve repair.
3. Deferred or late nerve repair.

In temporary coaptation tantalum wire is the suture material of choice and immediately preserves the divided segments from being in a retracted position with extensive gaps.

The wrapping of nerve junctions helps first, to keep regenerating nerve fibers from escaping to surrounding tissue, and second, to keep extraneural fibrous tissue

(*Continued on page* 62)



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*McLester, J. S.: Protein Comes Into Its Own, J.A.M.A. *139*:897 (April 2) 1949.

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from growing into the suture site and from forming constricting bands.

Microscopically the pathology of injury in the nerve had become well demarkated at about the third week after injury.

Wide experience in peripheral nerve surgery gained during World War II may make possible the autogenous grafting of major limb nerves in selected cases. Human nerve grafting bears little resemblance to these and other reports of gratifying results in experimental animals. The Peripheral Nerve Registry of World War II shows that among 7500 nerve repairs reported 67 nerve grafts of major nerves have been performed. Autografts and homografts are discussed.

Opportunities were afforded to study whole thickness homographs, frozen-dried whole and cabled homografts and whole and cabled autografts. Then, several specimens of each type of grafting were failures by clinical tests and results. No sign of clinical success was recognized in any of the homografts placed in defects in a total of nine major nerve trunks and studied for periods ranging from four thirty months among frozen-dried homografts only one case among twenty such grafts was successful.

The autografts fared only slightly better than the homografts.

R.J.B.

The Practice of Refraction, by Sir Stewart Duke-Elder K.C.V.O., M.A., D.Sc. (St. And.), Ph.D. (Lond.), M.D., F.R.C.S., Hon. D.Sc. (North Western), Surgeon-Oculist to H.M. The King; Knight of Grace of the Order of St. John; Consulting Ophthalmic Surgeon to the Army and the Royal Air Force; Director of Research, Institute of Ophthalmology, University of London; Consulting Ophthalmic Surgeon, Moorfields Westminster and Central Eye Hospital; Ophthalmic Surgeon, St. George's Hospital. Fifth Edition. 216 Illustrations. The C. V. Mosby Company, St. Louis. 1949. Price $6.25.

A study of this fine work on the art of refraction reveals many changes from its predecessors, including the war-time fourth edition and its two reprintings.

Additions on the nature and incidence of refractive errors and opinions regarding their biological determination produce a change in the authors approach to the problem of myopia.

Aniseikonia, the mechanism of accommodation, anomalies of convergence and orthoptics are considered with recent changing viewpoints and at greater length.

New sections deal with streak retinoscopy and velonoskiascopy. Amplification of sections is seen in the discussion of the effectivity and equivalence of lenses, and, also, the contact lenses.

Generally, the character of the book remains a practical one — more clinical than theoretical. Duke-Elder presents the essential principals of refraction in a manner suitable for guidance of both the student and the practitioner of ophthalmology.

L.P.A.S.

Obstetric Analgesia and Anesthesia — Their Effects upon Labor and the Child; By Franklin F. Snyder, M.D., Associate Professor of Obstetrics and Associate Professor of Anatomy, Harvard Medical School. 401 pages with 114 figures and 18 tables. Philadelphia & London: W. B. Saunders Co. 1949. $6.50.

This book departs from the usual treatise on obstetrical anesthesia by giving extensive study to the physiological principles involved. It contains much original work as well as an exhaustive review of the literature. The author believes that fetal respiration occurs much earlier than is usually thought, and is an important factor in this connection. This provides a new approach to the analysis of the hazards of labor to the child.

The analgesics and anesthetics are carefully considered and the author's enthusiasm for any one method is restrained. Although obviation of pain by psychological means is outside the scope of a book like this, one would be interested to hear Dr. Snyder's opinion of it.

This book is a scholarly approach to this subject. It is clearly written. Recommended.

J.C.S.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

X-Ray Treatment, Its Origin, Birth And Early History. By Emil H. Grubbe, B.S., M.D., F.A.C.P., The Bruce Publishing Company, Saint Paul and Minneapolis, 1949, 154 pages. Price $3.00.

A Candle In Her Hand, A story of the Nursing Schools of Bellevue Hospital. By Dorothy Giles. G. P. Putnam's Sons, New York. 240 pages. Price $4.00.

Ophthalmic Medicine. By James Hamilton Doggart, M.A., M.D., F.R.C.S. The Blakiston Company, Philadelphia 5, Pa., Toronto 2, Canada, 329 pages, 87 illustrations, 28 color plates. Price $8.00.

Vitaminology, The Chemistry and Function of the Vitamins. By Walter H. Eddy, Ph.D. The Williams & Wilkins Company, Baltimore, 1949. 365 pages Price $6.00.

Stern's Applied Dietetics, The Planning and Teaching of Normal and Therapeutic Diets, revised by Helen Rosenthal, B.S. and Wilma A. McVey, M.D. Third Edition. The Williams & Wilkins Company, Baltimore, 1949. 293 pages. Price $5.00.

Allergy In Relation To Otolaryngology: By French K. Hansel, M.D., M.S., F.A.C.A. Bruce Publishing Company, Saint Paul and Minneapolis, 1945. 77 pages. Price $2.50.

The Yellow Emperor's Classic Of Internal Medicine: By Ilza Veith, M.A., Ph.D. Chapters 1-34 translated from the Chinese with an Introductory Study. The Williams & Wilkins Company, Baltimore, 1949; 253 pages. Price $5.00.

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MANAGEMENT OF INTESTINAL OBSTRUCTION

One of the stumbling blocks is the early differentiation between simple and strangulation obstruction. This is important because the latter group is associated with a much higher mortality. Because of the inability to distinguish strangulation from simple obstruction, some surgeons take the stand that all acute mechanical obstructions should be regarded as strangulating until proved otherwise. The surgical staff of the Massachusetts General Hospital follows the policy of immediate operation, after replenishing fluids, upon all patients with acute intestinal obstruction who are seen within twenty-four hours. Even those that are seen within forty-eight hours after the beginning of the illness are operated upon as soon as the electrolytes, plasma and blood are replenished.

Excerpt: *The Surgical Management of Intestinal Obstruction, M. G. Gillespie, M.D., A. J. Schleper, M.D., J. W. Halvorson, M.D., and George W. Heine, Jr., M.D., Duluth, Minnesota; Minnesota Medicine, October,* 1949.

NEW TREATMENT FOR LOCKJAW

Two New Orleans doctors have been successful in relieving dangerous and sometimes fatal symptoms of lockjaw by administering a muscle-relaxing drug.

The compound, tolserol, was used previously in anesthesia and neurologic diseases.

Moderately severe muscle rigidity and spasm were controlled satisfactorily in seven patients, Drs. Harold E. Godman and John Adriani of the Charity Hospital Anesthesiology Department say in the Nov. 12th Journal of the American Medical Association. Doses of tolserol were given concurrently with phenobarbital, a sedative.

One patient with severe symptoms did not obtain satisfactory relief from the drugs.

None of the various drugs used to control rigidity and spasm of muscles in lockjaw has proved entirely satisfactory, the doctors point out. Treatment with tolserol has the advantage of helping keep the respiratory passages free of secretions.

Lung complications were observed in only one of the eight patients.



safe,

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In order to determine the extent to which White's Sulfathiazole Gum would reduce the incidence of upper respiratory infections, it was administered to 199 medical students in a dosage of one to three tablets daily over an eight month period of time*:

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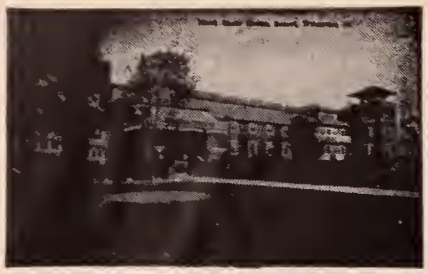
Economical: The dosage in these experiments was just one to three tablets daily.

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White Laboratories, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.

*Neiman, I. S.: Prophylactic Value of Sulfathiazole, Archives of Otolaryn. 47:158-164 (Feb.) 1948.



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International and Fourth American Congress on Obstetrics and Gynecology

MAY 14-19, 1950 — NEW YORK

The Chairman of the General Program Committee for the forthcoming Congress is Dr. Howard C. Taylor, Jr. of New York City. To date the following speakers have been placed on the program by Doctor Taylor and assigned the designated subjects. Each paper will be about twenty-five minutes in length and will be followed by a formal discussion.

Professor Heinrich Martius of the Department of Obstetrics and Gynecology of the University of Goettingen in Germany will speak on the general topic: Radiation Techniques and Results in the Treatment of Cancer of the Cervix.

Dr. Leon Gerin-Lajoie of the University of Montreal will speak on utero-salpingography as a means of differential diagnosis in hemorrhages of the uterus.

Dr. Carlos D. Guerrero of Mexico City will present an address based on the use, misuse and abuse of surgery in gynecology.

Dr. Arthur T. Hertig of the Harvard Medical College will address the Congress on "Implantation of the Human Ovum."

Dr. Carl Kaufmann, Professor of Obstetrics and Gynecology of the Faculty of Medicine at Phillip University at Marburg in Germany will speak on the subject of the relations of endocrinology to gynecology.

Dr. Hans Ludvig Kottmeier of the Gynecological Department of the Radio-pathology Institute in Stockholm, Sweden will lecture on various aspects of cancer therapy.

Dr. Laksmanaswami Mudaliar of Madras University in Madras, India will speak on a topic related to the toxemias of pregnancy.

Dr. Manuel Luis Perez of Buenos Aires has taken as his subject: "The Usefulness of Antibiotics in Obstetric Surgery."

S. R. M. Reynolds, Ph.D., of the Department of Embryology at the Carnegie Institute in Washington, D. C. will speak on: The Contractility of the Human Uterus and Its Physiological Basis.

Dr. Walter Seegers of the Department of Physiology of Wayne University College of Medicine in Detroit will talk on the work done by him and Dr. Charles Schneider on the fundamental aspects of the blood clotting problem and the practical aspects of the problem in obstetrics.

Dr. Harold H. Sheehan, Professor of Pathology at the School of Medicine of the University of Liverpool in England will speak on the kidney in abruptio placentae.

Dr. Jean Snoek of the Hospital St. Pierre at the University of Brussels has for his subject: Some Aspects of the Renal Function in Pregnancy and Their Morbid Consequences.

Dr. Herbert F. Traut of the University of California Medical School will speak on the early diagnosis of uterine cancer.

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The above speakers are all to appear during the five morning general sessions of the program and the list is but partially completed. Other noted men will take part in the afternoon programs of the medical section of the Congress being arranged by a subcommittee headed by Dr. Newell Philpott of Montreal. Separate afternoon programs are being arranged for nurses by Miss Margaret A. Losty, R. N. of New York, for public health people by Dr. Edwin F. Daily of Washington and for hospital administrators by Dr. G. Otis Whitecotton of Alameda. Doctor Daily is also arranging the program of speakers on the economic aspects of obstetrics and gynecology that will occupy Wednesday morning. The Wednesday afternoon program will be entirely planned and presented by the National Federation of Obstetric-Gynecologic Societies. For registration details, housing data and other aspects of the Congress address inquiries to Dr. Fred L. Adair at 161 East Erie Street, Chicago 11, Illinois.

The producer was planning a war movie. "This will be the extravaganza to end all extravaganzas," he purred. "I'm going to use full armies—4,000 men on one side and 5,000 on the other."

"A total of 9,000 in one movie?" exclaimed the director. "How can we afford such an extravaganza?"

"Easy," replied the producer. "We'll use real bullets!"

PRIVATE ENTERPRISE REGAINED

I am indebted to Betty Knowles Hunt for sending me a column she contributed to The New Hampshire Morning Union quoting from Governor Bradford's own history of the Plymouth Bay Colony over which he presided. It is a story that deserves to be far better known, particularly in an age that has acquired a mania for socialism and Communism, regards them as peculiarly "progressive" and entirely new, and is sure that they represent "the wave of the future."

Most of us have forgotten that when the Pilgrim Fathers landed on the shores of Massachusetts they established a Communist system. Out of their common product and storehouse they set up a system of rationing, though it came to "but a quarter of a pound of bread a day to each person." Even when harvest came, "it arose to but a little." A vicious circle seemed to set in. The people complained that they were too weak from want of food to tend the crops as they should. Deeply religious though they were, they took to stealing from each other. "So as it well appeared," writes Governor Bradford, "that famine must still insue the next year allso, if not some way prevented."

"So the colonists," he continues, "begane to thinke how they might raise as much corne as they could, and obtaine a beter crope than they had done, that they might not still thus languish in miserie. At length (in 1623) after much debate of things, the Gov. (with the advise of the cheefest amongest them) gave way

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that they should set corne every man for his owne perticuler, and in that regard trust to them selves. . . And so assigned to every family a parcell of land. . .

"This had very good success; for it made all hands very industrious, so as much more corne was planted than other waise would have bene by any means the Gov. or any other could use, and saved him a great deall of trouble, and gave farr better contente.

"The women now wente willingly into the field and tooke their litle-ons with them to set corne, which before would aledg· weakness, and inabilitie; whom to have compelled would have bene thought great tiranie and oppression.

"The experience that was had in this commone course and condition, tried sundrie years, and that amongst godly and sober men, may well evince the vanitie of that conceite of Platos and other ancients, applauded by some of later times;—that the taking away of propertie, and bringing in communitie into a comone wealth, would make them happy and florishing; as if they were wiser than God. For this comunitie (so farr as it was) was found to breed much confusion and discontent, and retard much imployment that would have been to their benefite and comforte.

"For the yong-men that were most able and fitte for labour and service did repine that they should spend their time and streingth to worke for other mens wives and children, with out any recompense. The strong, or man of parts, had no more in devissione of victails and cloaths, than he that was weake and not able to doe a quarter the other could; this was thought injuestice. . .

"And for men's wives to be commanded to doe servise for other men, as dressing their meate, washing their cloaths, etc., they deemd it a kind of slaverie, neither could many husbands well brooke it. . .

"By this time harvest was come, and instead of famine, now God gave them plentie, and the face of things was changed, to the rejoysing of the harts of many, for which they blessed God. And the effect of their particuler (private) planting was well seene, for all had, one way and other, pretty well to being the year aboute, and some of the abler sorte and more indus-erall wante or famine hath not been amongst them trious had to spare, and sell to others, so as any gen-since to this day."

The moral is too obvious to need elaboration.

—Henry Hazlitt in *Newsweek*

REPORT NEW VIRUS DISEASE RESEMBLING NONPARALYTIC POLIO

Occurrence of a new virus disease resembling mild poliomyelitis was reported separately today by doctors from New Haven, Conn., and Providence, R. I.

The new disease occurred among residents of Connecticut and Rhode Island during the polio season last summer and fall, the doctors said in the Nov. 26, Journal of the American Medical Association.

The New Haven doctors—Edward C. Curnen, Ernest

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Address Communications — THE NORBURY SANATORIUM, Jacksonville, Illinois

W. Shaw and Joseph L. Melnick of the Yale University School of Medicine—said that their study indicates the disease has a seasonal incidence in the summer and fall and may be common.

"Its occurrence during the summer of 1948 in the southern part of New England may account for the discrepancy noted in the distribution of paralytic and nonparalytic cases and for the mild character of many of the illnesses which were considered to be poliomyelitis," they pointed out.

The virus causing the new disease has been isolated and tentatively called the "IM virus" (because it causes fatal paralysis in infant mice), the New Haven doctors reported. Their study was concerned with 10 patients shown to be victims of infection with this virus. All at first were thought to have nonparalytic poliomyelitis or "meningitis of unknown origin."

Typical symptoms of the disease as described by the New Haven doctors were fever, headache, nausea, pain in the abdomen and arms and legs, stiffness in the neck or back and drowsiness.

These symptoms so closely resemble those of nonparalytic poliomyelitis that doctors may not be able to distinguish between the diseases in some cases, the New Haven doctors said.

Although none of the patients studied became paralyzed, evidence is insufficient to warrant the assumption that paralysis has not resulted from infection with the new virus, the doctors added.

(*Continued on page 72*)

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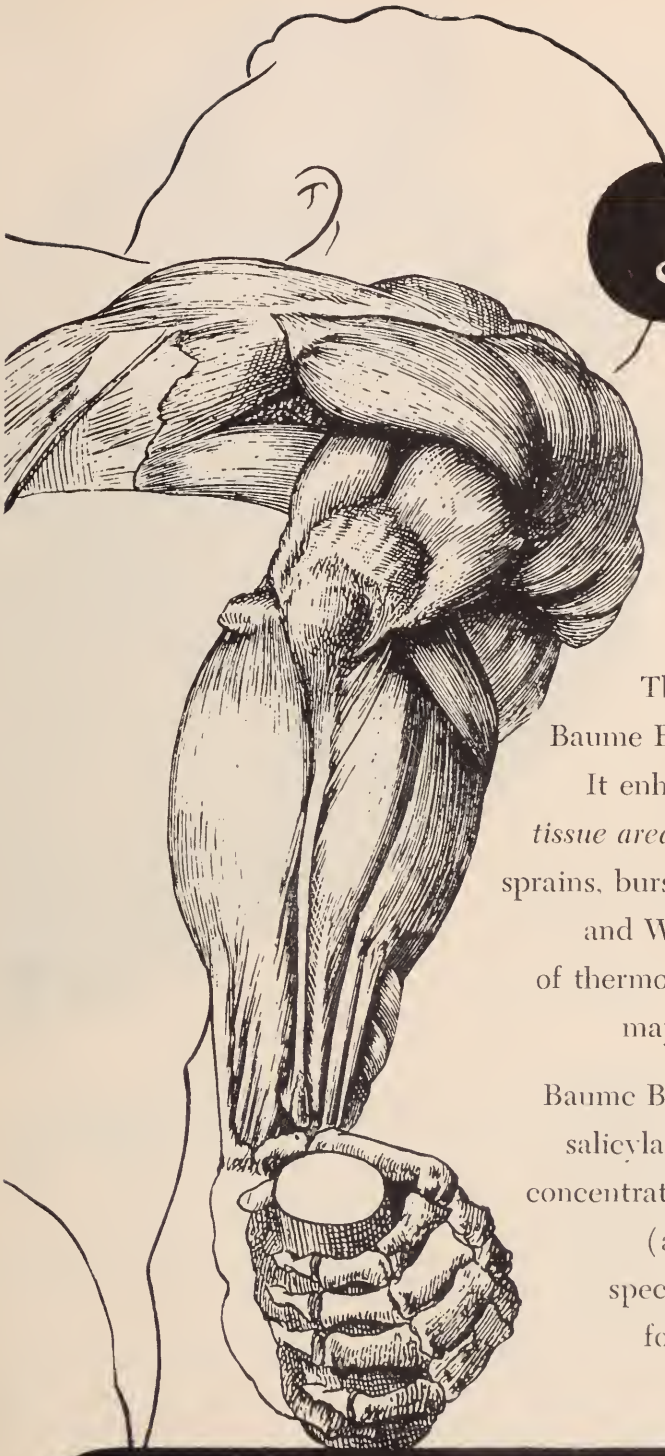
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Entered as Second-Class Matter July 21, 1919, at the Post Office, Oak Park, Illinois, under the Act of March 8, 1879. Acceptance for mailing at special rate of postage provided for in section 1102, Act of October 8, 1917, authorized July 15, 1918. Office of Publications, 715 Lake Street, Oak Park, Ill.



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1. Lange, K., and Weiner, D. J. Invest. Dermat. 12:263 (May) 1949.

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2. Wyatt, Bernard L.: Ann. West. Med. & Surg., Aug. 1949
3. Grimson, Marzoni, Reardon & Hendrix: Ann. Surg., 127:5, May 1948

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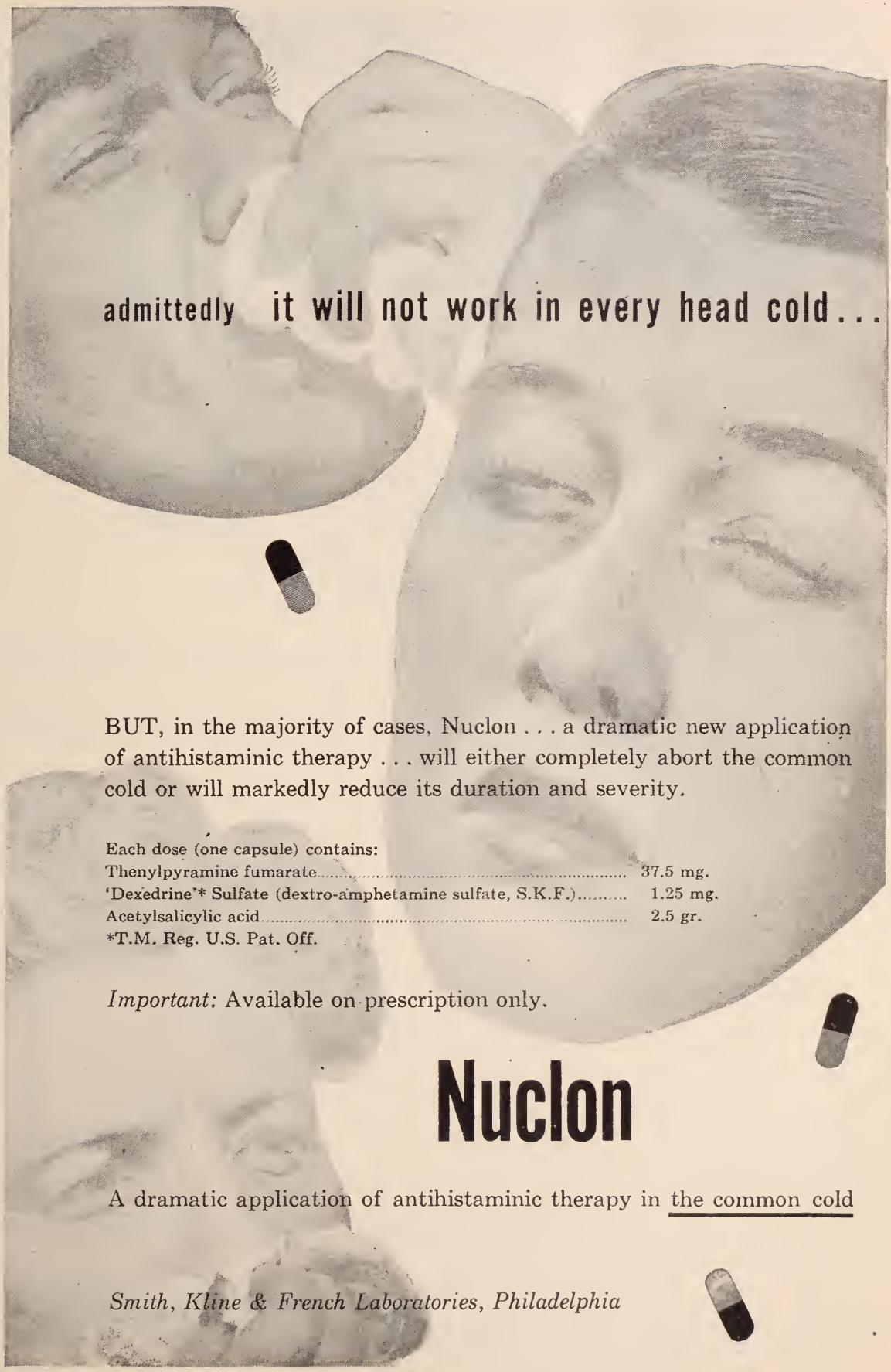
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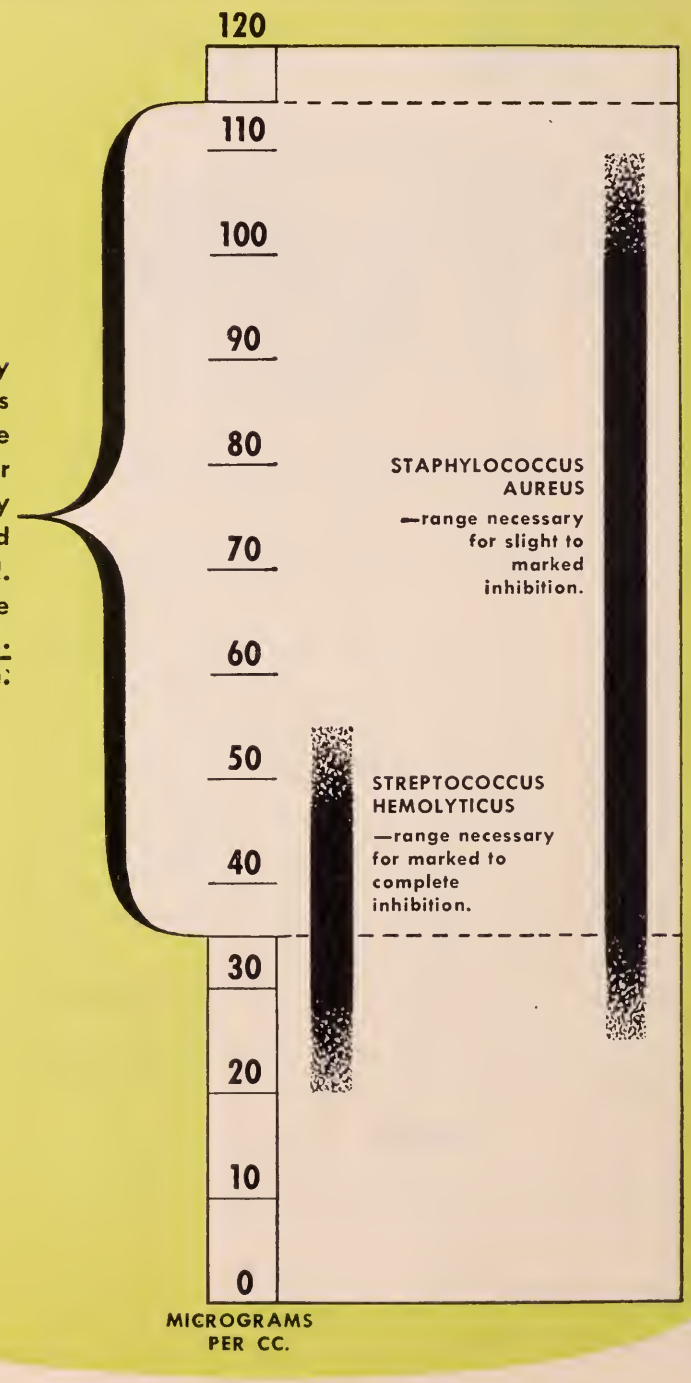
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[1]Kraemer, M.: Postgrad. Med. 2:431 (Dec.) 1947.
[2]Kraemer, M., and Siegel, L. H.: Arch. Surg. 56:318 (Mar.) 1948.
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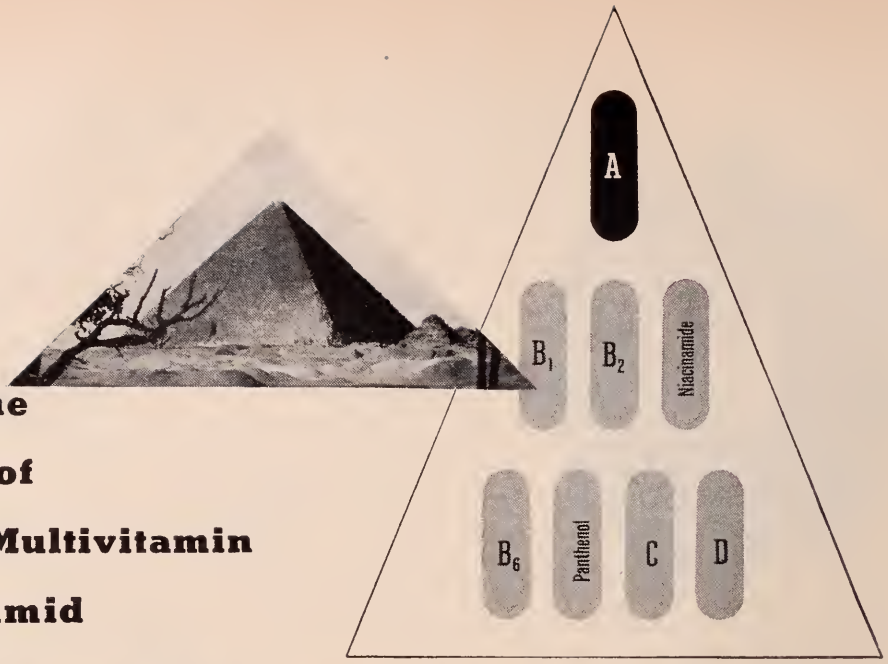
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"Exorbin" brand of Polyamine Resin

"Exorbin" No. 373 is presented in tablets of 0.25 Gm. (4 grains); bottles of 100. Also available in Powders, 1 Gm. (15 grains), No. 372; boxes of 50.



Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.



At the Top of the Multivitamin Pyramid

THERA-VITA *'Warner.'*

with Synthetic Vitamin A

without fishy after-taste

The problem created by repugnant fishy after-taste in vitamins is solved by THERA-VITA* 'Warner'. The vitamin A in THERA-VITA* is the new synthetic Vitamin A Acetate 'Warner' which has been demonstrated to be as stable and biologically active as the most highly refined and purified natural vitamin A but is devoid of the all-too-common distasteful fishy after-taste and odor of the natural product.

The formula of THERA-VITA

Each capsule contains:

Vitamin A (synthetic vitamin A acetate)	12,500 U.S.P. Units
Vitamin B_1 (thiamine hydrochloride)	10 mg
Vitamin B_2 (riboflavin)	10 mg
Niacinamide	100 mg
Vitamin B_6 (pyridoxine hydrochloride)	1 mg
Panthenol (equivalent to 11.5 mg d-Calcium Pantothenate)	10 mg
Vitamin C (ascorbic acid)	150 mg
Vitamin D (activated ergosterol)	1,250 U.S.P. Units

Indications for THERA-VITA

THERA-VITA* is particularly indicated for intensive therapy in vitamin depletions or deficiencies due to, or accompanying febrile diseases, allergic disorders, hyperthyroidism, inadequate diet, surgical operations, gastrointestinal disturbances, pregnancy.

William R. Warner & Co., Inc.

New York St. Louis Los Angeles

*T. M. REG. U. S. PAT. OFF.



The most "persuasive" oral germicide you can prescribe

1. Cēpacol persuades a wide range of oral bacteria to surrender within 15 seconds after contact[1]

2. Cēpacol's pleasant taste persuades your patients to use it

The rapid antisepsis[2] and soothing relief which Cēpacol brings to inflamed, sore throats are important. Along with the fact that Cēpacol is non-irritating, non-toxic, and does not interfere with tissue healing. Too, patients are extremely grateful to you for prescribing something so effective that also is so *pleasant* to use—as either gargle or spray.

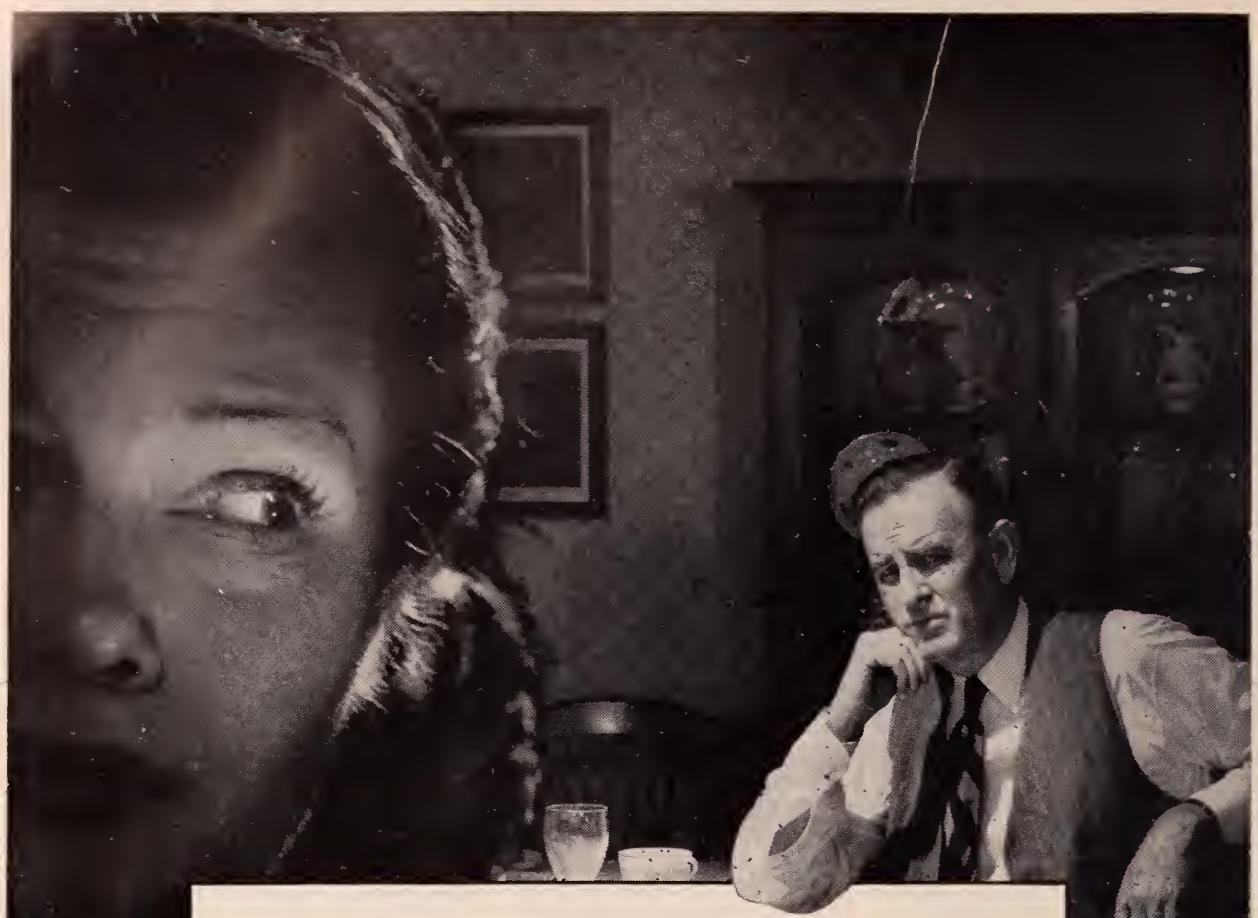
CĒPACOL®

The alkaline germicidal solution that works in partnership with saliva

Merrell
1828
CINCINNATI • U. S. A.

NOW AVAILABLE—Cēpacol Throat Lozenges! These convenient, pleasant-tasting lozenges, dissolved slowly in the mouth, provide a soothing, analgesic solution to relieve the dryness and irritation of sore throat.

1. As shown in laboratory studies. 2. Cēpacol contains an effective germicidal detergent, the quaternary ammonium salt Ceepryn® Chloride, 1:4000.



A Complete Line
of
Male and Female Hormones
WYETH

Outstanding for Potency, Efficacy, Toleration

TESTOSTERONE The most potent androgen

CONESTRON® *Conjugated Estrogens, Equine, Wyeth* Orally potent conjugated estrogens from natural sources for action without side action

PROGESTERONE Corpus luteum hormone

WYNESTRON* Aqueous suspension of pure crystalline estrone, Wyeth

All injectable forms available in the unique, exclusive TUBEX® and multidose vials.

Wyeth Incorporated, Philadelphia 3, Pa.

Wyeth®

*Trade Mark



***"... the common cold is aborted or cured..."*[1]**

"... the common cold is aborted or cured when the allergic reaction is reversed before irreparable damage has been done to the respiratory mucous membrane."[1]

CORICIDIN

(antihistaminic—antipyretic—analgesic)

The chief constituent of CORICIDIN* is Chlor-*Trimeton** Maleate, probably the most potent antihistaminic in use today. Because of its extraordinary activity, Chlor-*Trimeton* is effective in remarkably small dosage—1/10 to 1/20 the dosage of other current antihistaminics. Side reactions, including drowsiness, are correspondingly rare. In addition to Chlor-*Trimeton,* CORICIDIN contains acetylsalicylic acid and acetophenetidin with caffeine, for analgesic and antipyretic effect.

Taken early, CORICIDIN is highly successful in favorably influencing the common cold. Even after the cold is established, CORICIDIN may reduce its severity and distress and help prevent spread of the infection by reducing sneezing.

PACKAGING: CORICIDIN tablets, tubes of 12; bottles of 100 and 1000.

CORICIDIN is available on prescription only.

1. Brewster, J. M.: U. S. Nav. M. Bull. *49*:1, 1949.

*T. M.

Schering CORPORATION • BLOOMFIELD, NEW JERSEY

CORICIDIN

SCHERING





The fluid sulfadiazine that tastes better! acts faster!

Children—and adults who balk at bulky sulfadiazine tablets—take ESKADIAZINE willingly because of its delicious taste and pleasant consistency.

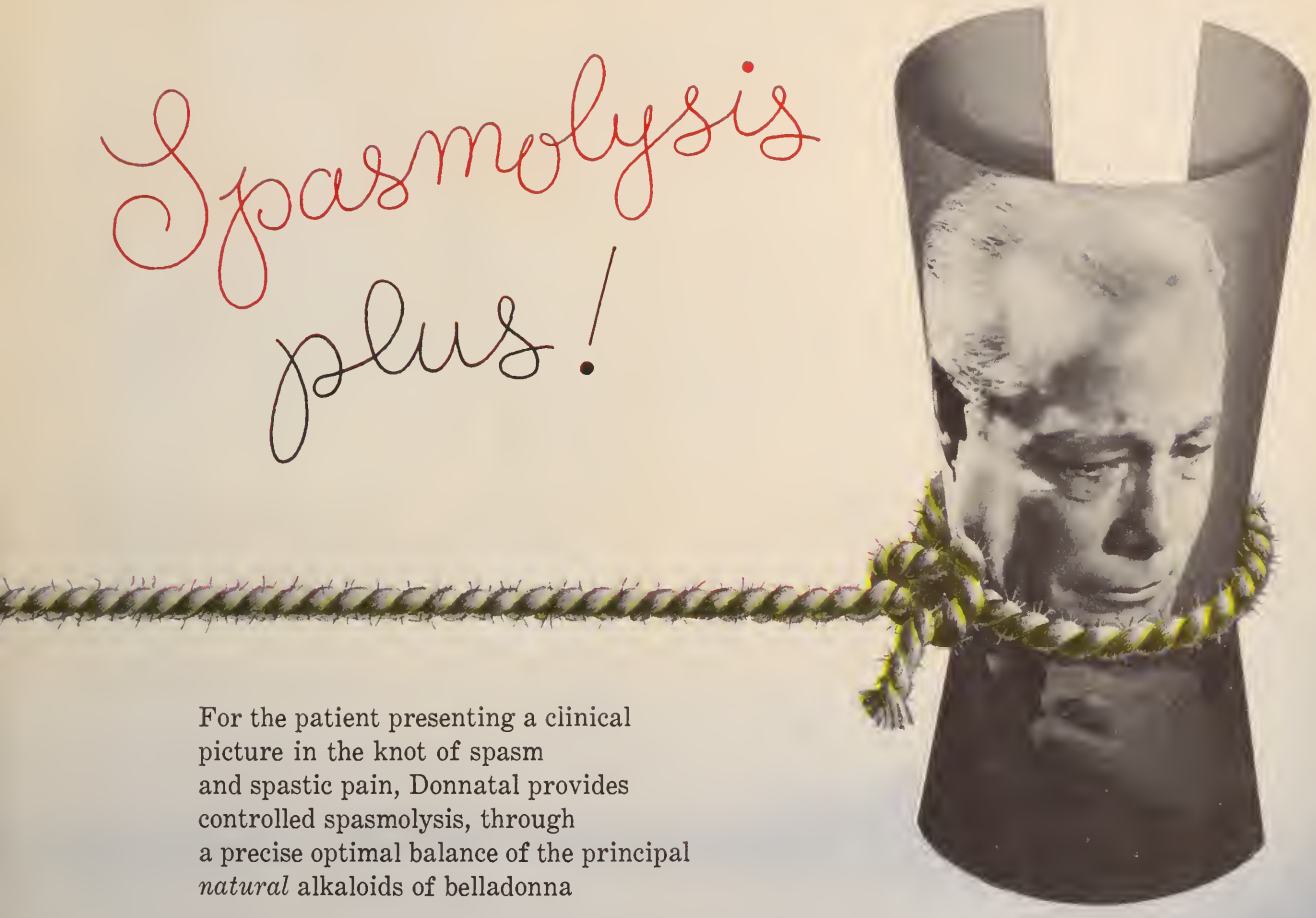
Instead of ordinary sulfadiazine, ESKADIAZINE contains S.K.F.'s *microcrystalline* sulfadiazine in a stabilized suspension. Result: desired serum levels may be attained *3 to 5 times more rapidly* with ESKADIAZINE than with sulfadiazine in tablet form. Each 5 cc. (one teaspoonful) contains 0.5 Gm. (7.7 gr.) of sulfadiazine—the dosage equivalent of the standard sulfadiazine tablet.

Smith, Kline & French Laboratories, Philadelphia

Eskadiazine

the outstandingly palatable fluid sulfadiazine

Spasmolysis plus!



For the patient presenting a clinical picture in the knot of spasm and spastic pain, Donnatal provides controlled spasmolysis, through a precise optimal balance of the principal *natural* alkaloids of belladonna

plus central and peripheral sedation plus freedom from toxic reaction plus choice of alternate dosage forms

plus broad therapeutic applicability in spasm of the gastro-intestinal, biliary, urogenital, respiratory and central nervous systems

plus outstanding economy



Each tablet or capsule, and each 5 cc. of elixir contains:

Hyoscyamine Sulfate	0.1037 mg.
Atropine Sulfate	0.0194 mg.
Hyoscine Hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

donnatal®

elixir, tablets, capsules

for effective relief of visceral spasm . . . Donnatal Elixir acceptable to *all* ages as spasmolytic alone, or as a therapeutic vehicle for adjuvant medication.

A. H. Robins Co., Inc. · Richmond 20, Virginia

Robins

Ethical Pharmaceuticals of Merit since 1878

now... digestant enzymes released in relay by the peptomatic* tablet

*A coined word to describe the unique mechanical action of the Entozyme Tablet, whereby:



1

pepsin is released only in the stomach, and

2

pancreatin and bile salts are released only in the small intestine.

The multiform aid required in digestional dysfunction or imbalance may now be administered in a single tablet—Robins' Entozyme—which (by unique Peptomatic* action) releases pepsin, pancreatin and bile salts individually at the gastroenteric levels of respective optimal activity. Entozyme has proven particularly efficacious[1,2] in chronic cholecystitis, post-cholecystectomy syndrome, infectious hepatitis, pancreatitis, chronic dyspepsia, and peptic ulcer. It is also especially useful in nausea, anorexia, belching, flatulence and pyrosis.

formula:

Each specially constructed tablet contains pancreatin, U.S.P., 300 mg.; pepsin, N.F., 250 mg.; bile salts, 150 mg.

references

1. McGavack, T.H., and Klotz, S.D.: Bull. Flower Fifth Ave. Hosp., 9:61, 1946. 2. Weissberg, J., et al.: Am. J. Digest Dis., 15:332, 1948.

Robins

entozyme®

The multi-enzyme digestant with unique Peptomatic Action!

A. H. Robins Co., Inc. · Richmond 20, Virginia

Ethical Pharmaceuticals of Merit since 1878



NOW.. ADDED CONVENIENCE FOR THE PATIENT

The "RAMSES"* Tuk-A-Way† Kit provides added convenience for the patient, for she will find, neatly assembled in this colorful, washable plastic kit, all the units required for optimum protection against conception: a "RAMSES" Flexible Cushioned Diaphragm of the prescribed size; a "RAMSES" Diaphragm Introducer of corresponding size; and a regular-size tube of "RAMSES" Vaginal Jelly.‡

The Tuk-A-Way Kit packs inconspicuously in the corner of a traveling bag or dresser drawer. It is available to patients through all pharmacies.

*The word "RAMSES" is a registered trademark of Julius Schmid, Inc. "RAMSES" Vaginal Jelly is accepted by the Council on Pharmacy and Chemistry of the American Medical Association. The "RAMSES" Diaphragm and Diaphragm Introducer are accepted by the Council on Physical Medicine and Rehabilitation of the American Medical Association.

†Trademark of Julius Schmid, Inc. ‡Active Ingredients: Dodecaethyleneglycol Monolaurate 5%; Boric Acid 1%; Alcohol 5%.

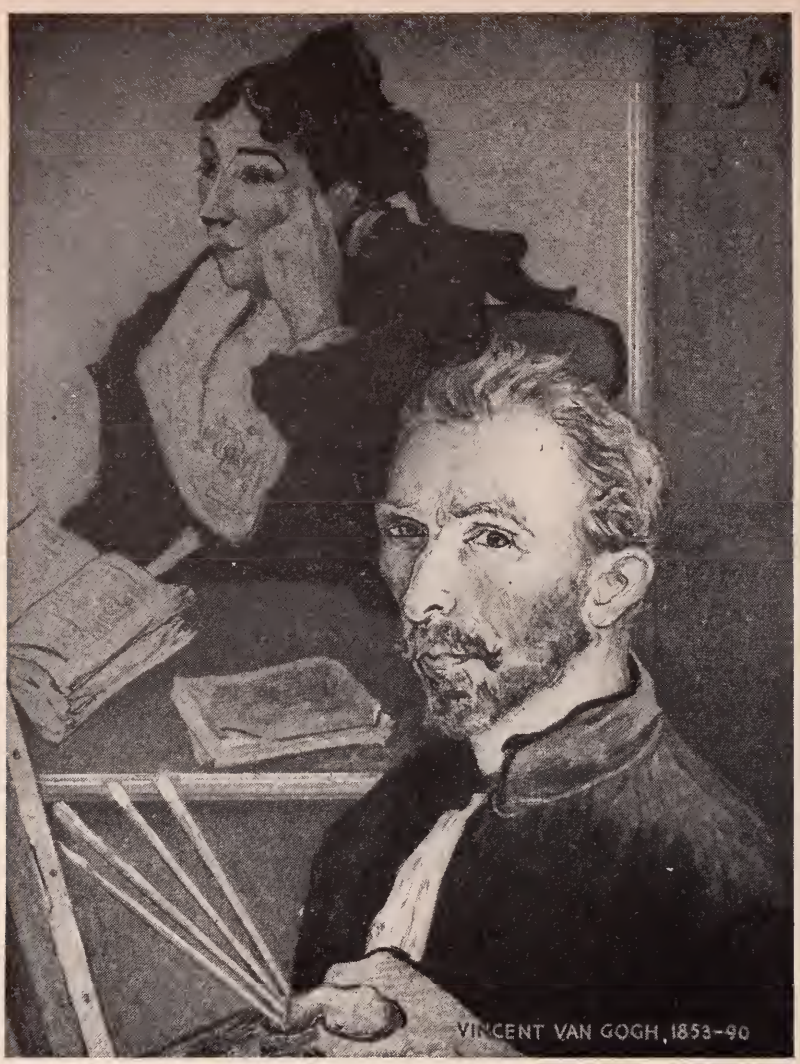
A MARK OF Ramses DEPENDABILITY

gynecological division

Julius Schmid, Inc.

423 West 55th Street, New York 19, N. Y.

quality first since 1883



★ *Epileptic Men of Genius* ★

The Dutch painter, Vincent Van Gogh, one of the masters of Post-Impressionism, suffered from the psychic equivalent type of epilepsy. During one of his many periods of confusion he cut off one of his ears and presented it to a lady friend.

Comparative studies have shown that in some cases better control of grand mal as well as petit mal seizures can be obtained with Mebaral than with corresponding doses of other antiepileptic drugs. Mebaral produces tranquillity with little or no drowsiness. It is particularly desirable not only in epilepsy but also in the management of anxiety states and other neuroses. The fact that Mebaral is almost tasteless simplifies its administration to children. Average dose for children ½ to 3 grains, adults 3 to 6 grains daily. Tablets ½, 1½ and 3 grains.

MEBARAL®
Brand of Mephobarbital

Winthrop-Stearns INC.
NEW YORK 13, N. Y. WINDSOR, ONT.

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Mebaral, trademark reg. U. S. & Canada

AUREOMYCIN HYDROCHLORIDE LEDERLE

in resistant staphylococcal infections



Aureomycin has been shown to be highly useful in the control of staphylococcal infections, many of which exhibit a high degree of resistance to other antibiotics and chemotherapeutic agents. The prognosis in systemic staphylococcal infections is sufficiently serious so that the optimum treatment should be administered immediately, and continued for one or several days after the temperature has subsided to normal.

Aureomycin has been found effective for the control of the following infections: bacteroides septicemia, brucellosis, Gram-negative infections — including those caused by the coli-aerogenes group, Gram-positive infections — including those caused by streptococci and pneumococci, granuloma inguinale, lymphogranuloma venereum, *Hemophilus influenzae* infections, primary atypical pneumonia, psittacosis, Q fever, rickettsialpox, Rocky Mountain spotted fever, penicillin-resistant subacute bacterial endocarditis, sinusitis caused by susceptible organisms, tularemia, typhus, bacterial and viral-like infections of the eye.

Capsules: Bottles of 25, 50 mg. each capsule. Bottles of 16, 250 mg. each capsule.
Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

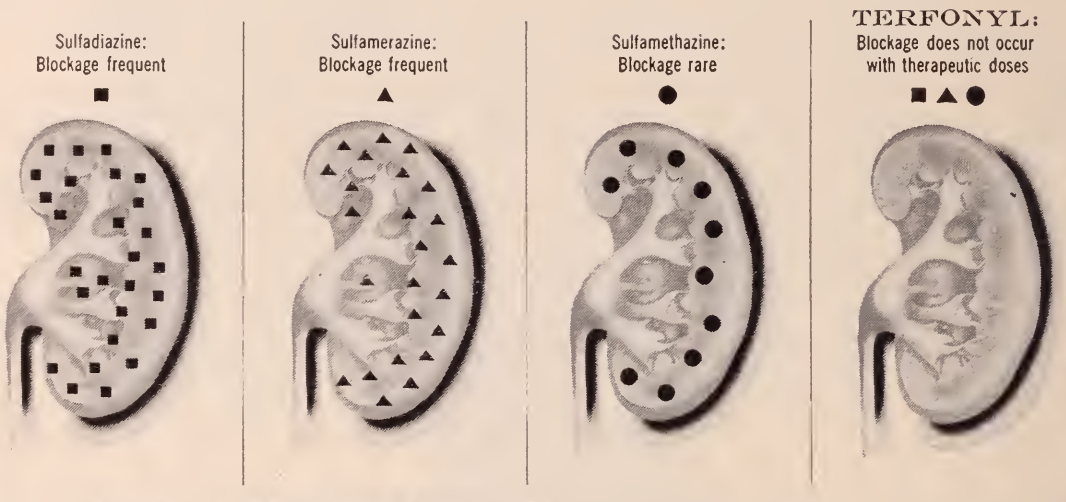
LEDERLE LABORATORIES DIVISION AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N. Y.

TERFONYL

Sulfadiazine
Sulfamerazine
Sulfamethazine

FOR SAFE SULFONAMIDE THERAPY

Low Renal Toxicity



With usual doses of Terfonyl the danger of kidney blockage is virtually eliminated. Each of the three components is dissolved in body fluids and excreted by the kidneys *as though it were present alone.* The solubility of Terfonyl is an important safety factor.

Terfonyl contains equal parts of sulfadiazine, sulfamerazine and sulfamethazine, chosen for their high effectiveness and low toxicity.

Terfonyl Tablets, 0.5 Gm. Bottles of 100 and 1000

Terfonyl Suspension, 0.5 Gm. per 5 cc.
Appetizing raspberry flavor • Pint and gallon bottles

SQUIBB MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

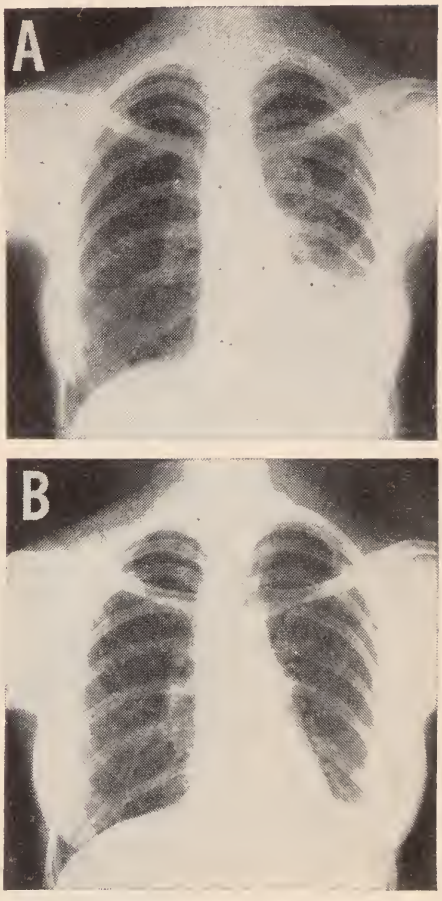
'TERFONYL' IS A TRADEMARK OF E. R. SQUIBB & SONS

Effective Chemotherapy in
TUBERCULOSIS

Streptomycin or Dihydrostreptomycin, used alone or in combination with para-aminosalicylic acid, is recognized as a valuable and, in some instances, an essential adjuvant in the treatment of selected types and stages of tuberculosis.

Para-aminosalicylic acid is capable of inhibiting or significantly delaying the emergence of bacterial resistance to streptomycin or dihydrostreptomycin.

These drugs are not to be regarded as substitutes for traditional therapeutic methods. Rather, they serve best when properly integrated with bed rest and, where necessary, collapse measures or other forms of surgery.



A. Before Treatment
(9 days prior to Dihydrostreptomycin therapy) Diffuse lobular tuberculous pneumonia, lower half of left lung; thin-walled cavity above hilus (3 x 3.5 cm.).

B. After 3 Mos. Treatment
(2 days after discontinuance of Dihydrostreptomycin) Considerable clearing of acute exudative process in the diseased lung; cavity smaller and wall thinner.

Detailed literature on the subject of chemotherapy in tuberculosis will be supplied upon request.

MERCK & CO., Inc.
Manufacturing Chemists
RAHWAY, N. J.

Merck Antitubercular Agents

Streptomycin Calcium Chloride Complex Merck

Para-Aminosalicylic Acid Merck (PAS)

Dihydrostreptomycin Sulfate Merck

An Innovation!

RHINALGAN*

Long-lasting nasal decongestant with no systemic effect (Pressor or Respiratory) in

DOHONY SPRAY-O-MIZER*
(Combination Spray and Dropper)

Clinical and laboratory tests have proven:

NO rise in bloodpressure
NO rapid pulse
NO wakefulness, restlessness or nervousness
NO smarting or stinging
NO secondary vasodilation...

follow the local use of RHINALGAN

*Trade Mark—Pat. Pend.



Pleasant

Efficient

Non-toxic

Bactericidal

FORMULA: Desoxyephedrine Saccharinate 0.50% w/v in an isotonic aqueous salutian with 0.02% Laurylammanium saccharin. Flavored. pH 6.4.

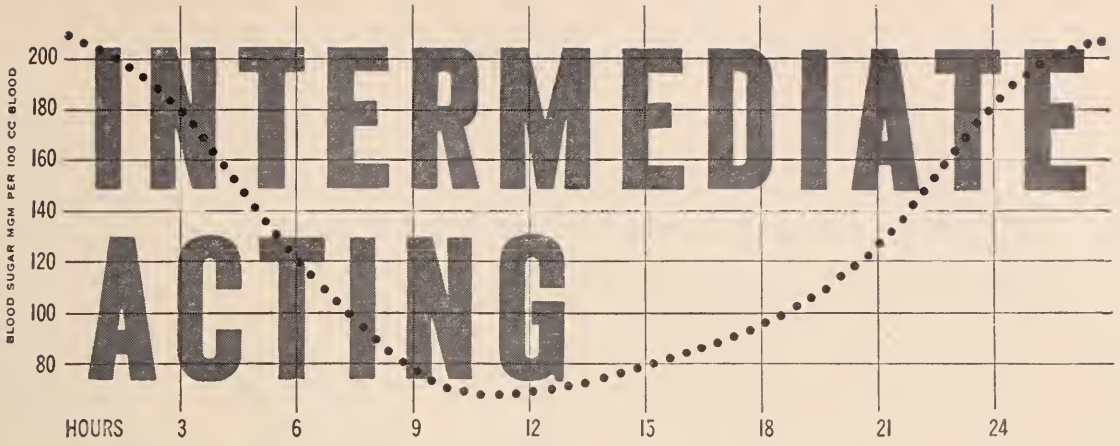
SUPPLIED: 30 grams (1 fl oz.) in Dahony Spray-O-Mizer (Combinatian Spray and Drapper). *Also far Doctar's affice and Hospital use—in Pint battles.*

FOR TOPICAL APPLICATION — INDICATIONS include: camman cald, allergic and hypertraphic rhinitis, sinus infectians; far pre and past-aperative shrinkage af nasal mucosa; as a diagnastic aid in affice pracedures. **ESPECIALLY SUITABLE FOR INFANTS AND CHILDREN.**

Substantiating data being sent you.

DOHO CHEMICAL CORPORATION · New York 13, N.Y.

Also Makers of AURALGAN · O-TOS-MO-SAN · RECTALGAN (Mallon Division)



INTERMEDIATE ACTING

GLOBIN INSULIN

'B.W.& CO.'

...was developed to fill the "need for an insulin with activity intermediate between that of regular insulin and that of protamine zinc insulin."[1]

IN 1939, Reiner, Searle and Lang described a new "intermediate acting" insulin.

IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B.W. & Co.'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B.W. & Co.'—or with a 2:1 mixture of regular insulin: protamine zinc insulin. *Ready-to-use* Globin Insulin 'B.W. & Co.' provides the desired intermediate action without preliminary mixing in vial or syringe.



In 10 cc. vials, U-40 and U-80.

1. Rohr, J.H., and Colwell, A.R.: Arch. Int. Med. 82:54, 1948.
2. ibid Proc. Am. Diabetes Assn. 8:37, 1948.

'B.W.& CO.'—a mark to remember

BURROUGHS WELLCOME & CO. (U.S.A.) INC. Tuckahoe 7, New York

"The . . . estrogen preferred by us is 'Premarin,' a mixture of conjugated estrogens, the principal one of which is estrone sulfate."

Hamblen, E. C.: North Carolina M. J. 7:533 (Oct.) 1946.

In treating the menopausal syndrome with "Premarin," Perloff* reports that "Ninety-five and eight tenths per cent of patients treated with 3.75 mg. or less daily obtained complete relief of symptoms"; also, "General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Thus, the sense of "well-being" usually imparted represents a "plus" in "Premarin" therapy which not only gratifies the patient but is conducive to a highly satisfactory patient-doctor relationship.

Four potencies of "Premarin" permit flexibility of dosage: 2.5 mg., 1.25 mg., 0.625 mg. and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

*Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

"PREMARIN"®

While sodium estrone sulfate is the principal estrogen in "Premarin," other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water-soluble conjugates.

Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine)

Ayerst, McKenna & Harrison Limited
22 East 40th Street, New York 16, N. Y.

Ayerst®

5003

THERAPEUTICALLY DESIGNED . . .

FOR THE RELIEF OF BILIARY AND DIGESTIVE DISTURBANCES



CHOLERETIC DIGESTANT

BILOGEN
'ORGANON'

The therapeutic efficacy of Bilogen 'Organon' is due to the judicious, therapeutically-designed combination of the several ingredients in each tablet: Ox bile powder (2 grs.) to stimulate bile secretion, oxidized mixed ox bile acids (1¼ grs.) to flush biliary ducts, desoxycholic acid (½ gr.) to promote fat absorption, and a pancreatin of high digestive power (equivalent to 3¾ grs. Pancreatin, U.S.P.) to supply natural ferments. The coordinated action of these ingredients provides gratifying relief from post-prandial fullness, food intolerance, epigastric pain, faulty intestinal elimination and other distressing symptoms of the non-surgical "biliary dysfunction syndrome." Bilogen is available for the physician's prescription in bottles of 1000 and 100 tablets.

T. M.-Bilogen

ORGANON INC. • ORANGE, NEW JERSEY



in Sulfonamide Therapy

Full sulfonamide dosage without any feeling of apprehension over renal complications.

Maximum Therapeutic Efficacy. High initial blood levels are produced rapidly, and are consistently maintained on a dosage of 2 teaspoonfuls every 4 hours.

Maximum Safety. The total solubility of two sulfonamides is significantly greater than either one alone. The solubility is further increased because Aldiazol-M alkalizes the urine, hence reduces the hazard of crystalluria.

Greater Palatability. The pleasant taste of Aldiazol-M invites patient cooperation and, in juvenile patients, forestalls "medicine-time tantrums."

Aldiazol-M is available, on prescription, in all pharmacies. Write for sample and literature.

THE S. E. MASSENGILL COMPANY
Bristol, Tenn.-Va.
NEW YORK • SAN FRANCISCO • KANSAS CITY

SE-M-CO

Each teaspoonful (5 cc.) of Aldiazol-M provides:
Sulfadiazine (microcrystalline)...0.25 Gm.
Sulfamerazine (microcrystalline)...0.25 Gm.
Sodium Citrate..... 1.0 Gm.

ALDIAZOL-M

Seal capillaries with natural clot



Local application of THROMBIN TOPICAL rapidly controls capillary bleeding. In three seconds a solution containing 1,000 units per cc. clots ten times its own volume of blood. It may also be applied as a dry powder.

THROMBIN TOPICAL

THROMBIN TOPICAL reacts with blood fibrinogen to form a firm adherent fibrin clot, end-result of the natural clotting mechanism. By this physiologic action THROMBIN TOPICAL helps control bleeding in all types of surgical procedures—lysis of abdominal or thoracic adhesions, mastectomy, transurethral prostatic resection, nose and throat operations, skin grafting, neurosurgery, orthopedic surgery, dental extractions, etc. Well tolerated by the tissues, it may also be used in conjunction with Oxycel® (oxidized cellulose, Parke-Davis).

THROMBIN TOPICAL (bovine origin) is supplied in vials containing 5000 N.I.H. units each, with a 5 cc. vial of sterile isotonic saline diluent. Also available in a package containing three vials of THROMBIN TOPICAL (1000 N.I.H. units each) and one 6 cc. vial of diluent.

PARKE, DAVIS & COMPANY

MEDICAMENTA VERA



All the essential vitamins for average infant—in drop-dosage form

White's MULTI-VI DROPS

Water-miscible. Non-alcoholic. Vitamin D chemically identical to that of cod liver oil. Inexpensive. Very palatable.

Each 0.6 cc. contains:

Vitamin A	5000 U.S.P. units
Vitamin D_3	1000 U.S.P. units
Thiamine Hydrochloride	1.0 milligram
Riboflavin	0.4 milligram
Pyridoxine Hydrochloride	1.0 milligram
Sodium Pantothenate	2.0 milligrams
Nicotinamide	10.0 milligrams
Ascorbic Acid	50.0 milligrams

In bottles of 10 cc. and 30 cc. (with calibrated droppers).

White Laboratories, Inc., Pharmaceutical Manufacturers, Newark 7, N. J.

PERITONITIS: what's the risk?



Careful enteric surgical technics have lowered the risk of peritonitis greatly; preoperative administration of SULFASUXIDINE *reduces it even further, and postoperative use of this highly efficient bacteriostat speeds and simplifies convalescence.*

Description: Relatively nontoxic; only 5% absorbed into blood; rapidly excreted by kidneys. Maintains high bacteriostatic concentration in bowel.

Indications: (1) Before enteric surgery, to minimize risk of peritonitis; afterward, to speed and simplify recovery. (2) Ulcerative colitis. (3) Bacillary dysentery, acute or chronic, including carrier state. (4) Combats urinary tract infection due to *E. coli*, by lowering enteric bacterial reservoir.

Dosage: Initial, 0.25 Gm./kilogram; maintenance, 0.25 Gm kilogram/day, 6 doses, 4-hour intervals. Supplied in 0.5-Gm. tablets, bottles of 100, 500, 1,000, and (oral) powder, ¼ and 1-lb. bottles. Sharp & Dohme, Philadelphia 1, Pa.

SHARP & DOHME

Sulfasuxidine®

succinylsulfathiazole

"A safe and effective drug to use in controlling weight gain  during pregnancy."

Coopersmith, B.I.: Dexedrine and Weight Control in Pregnancy, Am. J. Obst. & Gynec. (Oct.) 1949

Coopersmith reports the successful use of 'Dexedrine' Sulfate Tablets for weight control in a series of 100 obstetric patients. Because 'Dexedrine' curbed appetite and thus enabled these patients to follow their prescribed diets, control or reduction of weight was achieved in virtually all cases.  It is noteworthy that other methods, including the use of thyroid, had previously failed to prevent excessive weight gain in these same individuals. "Thyroid", Coopersmith states, "increases the appetite . . . and is toxic in many cases."  "Dexedrine Sulfate", the report concludes, "is a safe and effective drug to use in controlling weight gain during pregnancy."

Smith, Kline & French Laboratories, Philadelphia

Dexedrine* Sulfate tablets • elixir

for control of appetite  in weight reduction

*T.M. Reg. U.S. Pat. Off. for dextro-amphetamine sulfate, S.K.F.



the family syndrome in menopause

The upset family
of the menopausal woman
frequently presents a greater problem
than the patient's condition.
The varying aspects
of the menopausal syndrome
usually require more
than one approach.
However, the usefulness,
convenience, and economy of
Diethylstilbestrol, Lilly,
warrant its selection for most cases.
Often its estrogen-replacement effect
is all that is needed to calm the patient
—and the family, too.

Lilly



Detailed information and literature on DIETHYLSTILBESTROL PRODUCTS, LILLY, are supplied through your M.S.R.*

*M.S.R.—Lilly Medical SERVICE Representative



A 19"x 12" reproduction of this illustration by Stevan Dohanos is available upon request

more precious than gold

Coal's intrinsic worth to man is far more than that of precious gold. Shedding warmth, turning the wheels of industry, and giving relief from pain and sickness through its derivatives, it has a greater variety of uses.

The synthetics, such as diethylstilbestrol and a host of analgesics, anesthetics, and sedatives, are the pharmaceutical offspring of the coal mine.

Original developments in such drug synthesis continue in the Lilly Laboratories. Users of Lilly products further additional advances toward more successful medicine.

Lilly

ELI LILLY AND COMPANY

INDIANAPOLIS 6

INDIANA, U.S.A.

The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

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Vol. 97, No. 2 February, 1950

THE ANDY HALL ANNUAL MEETING

The 1950 Annual Meeting of the Illinois State Medical Society will be known as "The Andy Hall Annual Meeting."

For the first time in the history of the state society its annual session will be dedicated to and will be held with the principle in mind of honoring an individual member of this Society. At the regular January meeting of the Council upon the request of several members, it was unanimously voted to so designate our first downstate meeting since 1942.

Dr. Andy Hall has always been intensely interested in all problems pertaining to the care of his patients; he has advanced with the times; he has been an active member of organized medicine throughout the years; he has participated in all forms of postgraduate education; his office equipment is modern in every sense of the word; he has served his people and his nation at peace and at war; his work as the Director of the Department of Public Health of this State is still remembered; he has been Mayor of his town and active in good politics as every citizen of this nation should be; he has opposed the development of compulsory health insurance every step of the way. On January 8 Doctor Hall celebrated his 85th birthday, and the following day was in his office as usual seeing the many patients who have depended upon him for their medical needs over a long period of years. It seems most fitting that the 1950 annual meeting, his 60th year of practice, be designated as the Andy Hall Annual Meeting.

To Doctor Andy Hall has come all honors, local, state and national, yet from Doctor Hall comes the following sincere and modest statement of the gentleman he has always been:

"Please convey to the members of the Council my thanks and deep appreciation for the efforts in placing my name before the national committee and securing this unusual honor. It is not only an honor coming to me as a general practitioner, but it is an honor to thousands of general practitioners, many of whose names will never be enscrolled on any honor roll, but who are quietly, energetically and honestly performing the merciful and protective missions to suffering humanity — preventing disease, relieving pain and prolonging lives and adding much to the sum of human happiness."

Tuberculosis is preventable and eradicable. In the United States it causes one death every nine minutes. Illinois needs 3000 additional sanitarium beds.

ILL. M. J. 97:54 (FEB) '50

THE ANTIHISTAMINIC DRUGS — FIVE YEARS OF EXPERIENCE

Samuel M. Feinberg, M.D.

With the exception of aspirin the most frequently used group of drugs at the moment of this writing are the antihistaminic compounds. First employed for the relief of allergic manifestations, then for many syndromes of unknown etiology and finally for the treatment of the common cold, their prominence has assumed proportions which makes stock-taking an obligation.

For some years the concept has prevailed that the major factor in the allergic reaction is the action of histamine on tissues as a result of its release arising from the union of antigen and antibody.

The report of Fourneau and Bovet[1] of the Pasteur Institute of Paris in 1933 that certain phenolic ethers had the property of counteracting histamine led to a more promising series of ethylenediamine compounds first reported by Marie Staub[2] of Paris in 1939. It was not, however, until 1942, when Halpern[3] of Paris described the action of Antergan that a compound was available which was found to be useful in man. This was soon superseded by the more active and less toxic Neoantergan.[4] It was not until early 1945 that Loew and his associates[5] announced the pharmacologic behavior of Benadryl and a few months later that Mayer and his coworkers[6] presented Pyribenzamine. In the intervening four or five years virtually thousands of compounds were examined experimentally by pharmaceutical houses, hundreds were tried in many laboratories including ours[7] and of these about fifteen or more reached the drug market. Among these may be mentioned Benadryl, Pyribenzamine, Neoantergan, Antistine, Phenergan, Neohetramine, Thenylene (Histadyl), Tagathen (Chlorothen), Diatrin, Decapryn, Pyrrolazote, Thephorin, Trimeton, Di-paralene (Perazil), Chlortrimeton. In addition to these drugs in tablets or capsules there were presented combinations of antihistamines with other antiallergic drugs, two antihistaminic drugs combined in one tablet, enteric coated tablets, tablets part of which were enteric coated and part sugar coated, syrups, elixirs, expectorant mixtures, eye drops, nose drops and sprays, and ointments and creams. Hundreds of published medical articles, claims and counterclaims by pharmaceutical houses, the ardent claims by detail men of superior advantages for their particular product, and the indiscriminate newspaper, radio and magazine publicity served perfectly to confuse not only the public but the medical profession as well.

Let us examine the major facts. In the laboratory one soon finds that all these compounds have virtually the same effects. Their major actions are local anesthesia, convulsions in toxic doses, inhibition of histamine shock in the guinea pig, dog and cat, prevention of histamine contraction of isolated muscle strips, prevention of asthma in the guinea pig from a histamine aerosol, and prevention of anaphylaxis. The clinical effects of the various antihistamines are also similar qualitatively[8]. They are effective against moderate symptoms of seasonal hay fever and less effective in perennial vasomotor rhinitis. In severe types of hay fever, in the nasal obstructive stage of the disease, in the latter part of the season, in severe seasons and in localities of high pollen content their effectiveness may be little or none. In asthma these drugs are useless in the majority of instances and certainly cannot compete with the old established palliative remedies such as epinephrine, ephedrine, aminophylline and iodides, and the newer remedies of isuprel and norisodrine inhalants and orthoxine. Desensitization with pollen extracts will prevent most of the 35 per cent of the asthmas which the hay fever sufferers normally experience. In the last three or four years as a result of high powered publicity the substitution of the antihistamines for the more efficient anti-asthmatic remedies and allergic management by physicians and patients has resulted in an actual deterioration of the management of asthma. It should be added that in some instances of allergic cough the antihistamines orally may be of benefit and in some cases of asthma aerosols of these drugs may be effective.[9]

The antihistamines are also useful in itching dermatoses. Urticaria, angioneurotic edema, drug reactions, dermographism, pruritis anae and vulvae, "serum sickness" type of reaction from sera, penicillin, streptomycin, and sulfonamides

From the Dept. of Medicine, Northwestern University Medical School.

will usually be mitagated by antihistamine therapy. In all instances the effect is entirely symptomatic and the natural course and duration of the disease is not altered by this therapy. Constitutional effects from antigens may be prevented to a moderate extent only by the use of a dose of an antihistamine one hour before the injection. It cannot be emphasized too much that in case of an allergic emergency such as a severe reaction from pollen injection or an immediate serum reaction an antihistamine even by injection may be worthless. Only epinephrine may be life saving.

More recently the antihistamines have been advocated in the treatment of the common cold by Brewster[10], Gordon[11], Murray[12], and Arminio and Sweet[13]. The general claims of these writers has been to the effect that the prompt use of these drugs at the beginning of colds has resulted in a cure of the latter in one to three days. These reports have served as a basis for the marketing of many antihistamines alone or in combination on the doctor's prescription for the treatment of colds. Recently permission was also granted by the Food and Drug Administration to sell three such drugs under various trade names over-the-counter without the doctor's prescription. The doses marketed in these tablets is about one-third to one-half of the doses used in the experiments reported. The available evidence thus far for the efficacy of the antihistamines in colds is inconclusive on the following grounds: 1. The number of patients tested has been too small. 2. Patients with allergy or allergic syndromes have not been adequately excluded. 3. In many instances the patient's diagnosis of a cold was the basis of classification. 4. The immediate treatment of rhinitis is emphasized. Common experience tells one that a large percentage of episodes of sniffles, feeling of chilliness or sneezing do not materialize into colds. They are in essence vasomotor disturbances due to chilling, allergy and other phenomenon producing vasomotor effects. 5. Control series have not been adequate in the main. 6. Absolute diagnostic criteria of colds have not been utilized in the studies. The writer is impressed by the fact that among a group of chronic allergic patients having rhinitis, urticaria or atopic dermatitis, who have been taking full doses of antihistaminic drugs three or four times daily for many weeks the incidence of colds and their duration appeared to be no different from their previous experience or of the population in general. It is perfectly possible to obtain an atropin-like drying effect on the rhinorrhea or even to diminish some of the sneezing in the early stages, but the effect on the course of the cold is still in doubt.

Many limitations to the effectiveness of the antihistamines are present. They do not relieve all types of allergic manifestations, such as asthma, bacterial type of allergy and others. They are not effective due to the limitations of the amount of histamine which can be combated, by the amount of the antihistamine which can be tolerated and also to the fact that other than histamine effects may be present in the allergic reaction. They fail to affect all phenomena of an allergic manifestation, such as the edema in nasal turbinates. Their action is of short duration. Perhaps one of the most important limiting factors is the toxicity of this class of drugs. Virtually all are sedatives in moderate doses and cerebral excitants in high doses. The hazards of sedation, of lack of alertness in operating machinery, in automobile driving and in lack of mental concentration are obviously reflected in accidents and loss of efficiency. High doses may result in convulsions and death. Other side effects which may occur are cardiac and cerebral excitation, insomnia, dizziness, gastro-intestinal disturbances, marked dryness of the nose and throat and bladder disturbances. Blood dyscrasia has also been described and it is possible that remote toxic effects may also be something to contend with in the future.

Marked individual differences exist in the therapeutic and toxic responsiveness to the antihistamines in general and to specific compounds in particular. Some drugs although generally more potent than others are not necessarily the most effective for a particular person. Furthermore, a drug with a high sedative index may occasionally prove to be better tolerated than one with a lower index. It is necessary, then, to try frequently more than one drug to suit a particular individual. However, it is too confusing and inefficient for the average practitioner to become experienced with and to prescribe fifteen or more different antihistamines. It is the writer's recommendation that the average physician become familiar with a series of three antihistamines, one less potent and less sedative, one potent and moderately sedative, and one potent and

~~moderately~~ highly sedative. From the first group he could choose either Antistine, Neohetramine, Di-paralene and Thephorin. From the second group he could select either Pyribenzamine, Neoantergan, Thenylene, Tagathen, Diatrin, Pyrrolazote, Trimeton and Chlortrimeton. The third could be chosen from Benadryl, Decapryn and Phenergan. With a combination of three diversified drugs almost any situation responding to antihistamines could be met.

Over-the-counter sales of several antihistaminic drugs has created another hazard to public health. Replies to 180 questionnaires sent out by the writer to those who have had the largest clinical experience with the antihistamines — Fellows of the American Academy of Allergy —brought 153 returns. There was almost unanimous agreement[14] on the following: that therapeutic effects will be negligible with the doses recommended on labels; that over-the-counter drug articles do not command respect as regards potency and possible hazard; that careless handling of such drugs will probably result in fatalities; that such uncontrolled use of antihistamines may prove disastrous as driving hazards and that they may not be free from remote toxic effects; that such permission encourages self-diagnosis and self-treatment; and that these drugs should not be sold without prescription. At the meeting of the Council of Pharmacy and Chemistry of the American Medical Association on November, 1949, where the writer was invited to present this subject it was agreed that this self-medication constituted a hazard, that the evidence for the effectiveness of the antihistamines for colds was inconclusive and that the profession and public be appraised of these facts.

It is the function and duty of every physician and the family doctor in particular to serve as a protector of the health and life of those entrusted to his care. A word of advice, a timely warning here and there, may save a life.

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ACUTE PANCREATITIS

Acute Pancreatitis is difficult to diagnose clinically. In the past, most of the cases were recognized at operation and at autopsy; it is no wonder that the disease was of interest to the surgeons and pathologist and neglected by the internist. With the advent of newer pancreatic tests, the situation is changing and it is possible now to make the clinical diagnosis more frequently. As a result, many will be spared from unnecessary surgery in the future.

The symptoms resemble acute gallbladder and stomach pathology. There is a sudden onset of abdominal pain, most commonly epigastric or poorly localized in the upper abdomen. In more than one-half of the cases, the distress shifts and radiates to the back or upper right quadrant. It is noted occasionally in the left upper quadrant, the lower abdomen or the right shoulder. Vomiting is the rule.

Since the onset is often retroperitoneal, true abdominal rigidity usually is lacking. This is not a hard, fast rule, however, but in many instances, the findings serve to distinquish acute pancreatitis from perforated peptic ulcer. Since many of the victims also have gallbladder disease, the findings of acute cholecystitis and/or cholelithiasis usually co-exist and often dominate the picture. The individual usually is sicker, however, and many are in shock or near to it. In the past, shock was considered a prerequisite to the diagnosis but it is not the most common symptom and need not be present especially when acute pancreatic edema exists.

There are many pancreatic function tests including the serum amylase, serum lipase, secretin and the roentgen ray film tests. The serum amylase is the most specific and trustworthy but to be of value it must be done early in the course of the disease. In acute pancreatitis, there is a

significant rise during the first two or three days followed by a fall to normal. For the best results it should be done during the first twenty-four hours and if there is no increase in the serum amylase level, the chances are good that acute pancreatitis does not exist. Therefore, if we are to diagnose the condition more often, it is advisable in all cases of acute upper abdominal pain to draw blood for this test.

HEALTH EDUCATION THROUGH TELEVISION

For the past year the Illinois State Medical Society, through its Educational Committee, has presented a weekly television broadcast on various health subjects. This has been made possible through the cooperation of the "WGN-TV" Chicago station. Television is perhaps the newest medium for offering educational facts to the public, and it seems most fitting and proper that health educational programs are well received and desirable.

Television, combining the perception of both eye and ear upon the observer's brain, is more likely to be retained than the same material when presented orally, or when projected on the screen as a "still". With well executed dramatic technic carefully planned, it unquestionably adds materially to the enjoyment of the observer. The programs have been presented regularly throughout the past year on Wednesday afternoon. The writing of the script and dramatization has been done entirely by the Educational Committee.

Those participating in these broadcasts have been physicians and their patients; no professional talent has been used for any of the presentations. A physician who is not in private practice has been used as moderator for the programs, it seeming preferable to the committee than having the usual studio moderator. Physicians who have appeared on the programs have thoroughly enjoyed the experience, even though a considerable amount of time and effort have been necessary for their preparation to the best advantage.

The subjects presented have been varied, covering the various aspects of medical and surgical practice including many of the specialties. Perhaps the most outstanding and most dramatic presentation of the year was the showing of the fluoroscopic image of an actual patient's heart, this being only possible when a new "tube" had been perfected which was used in this presentation. This broadcast received wide attention through its unusual character and as it was the first presentation of such a feat through television.

Another spectacular show was one on anesthesia, in which a complete operating room was seen with all equipment, patient, anesthetists, nurses, etc. The items needed in case of anesthesia difficulties were presented. This seemed quite efficient in removing the mystery ordinarily present in the lay mind about anesthesia and its administration. The Educational Committee has been particularly careful in preparing the scripts for all presentations. No drug is mentioned by name, nor is there any reference to any agency dealing with the subject being presented.

In their regular "Health Talk" releases, the same principles are strictly followed, and at the present time, more than 350 newspapers in Illinois are using this material in their columns. Much credit for the success of these programs is due to the extensive personnel of "WGN-TV", who have invariably endeavored to do everything possible to improve the caliber of the show. The Illinois State Medical Society is the first state society to use television as a health education medium, and many letters are being received from various parts of the country commenting on this activity.

Unfortunately up to now, reception of television is largely limited to those areas near the larger urban centers, but it seems probable that within a relatively short time through the development of relay towers, rural people and those in smaller cities will be able to get clear reception. The Educational Committee hopes to continue this effort, and in the near future it is quite possible that an evening half hour will be substituted for the present 4:30 P.M. time of this broadcast.

By now it must be plain that the fight against tuberculosis is a social and economic movement as well as a disease problem. We now have enough information to be confident that an awakened awareness of the people is the chief tool for triumph. Francis J. Weber, M.D., Ohio Pub. Health, Feb., 1948.

CANCER DETECTION CLINIC IN THE SMALL HOSPITAL

E. B. Williams, M.D.

With the amount of publicity given the cancer question, more and more people are seeking examinations for cancer. Many of these people are in the vicinity of the smaller hospital and naturally would prefer to go to their home hospital for examinations. This is a convenience to the patient and further more saves him money in transportation and hotels.

Of what value then is a cancer detection clinic in a small hospital. By "small" I mean a general hospital under 200 beds. It is obvious that the amount of statistical material gathered would not be comparable to that gathered in a larger hospital or a large cancer center.

The Ravenswood Hospital of Chicago has a cancer detection clinic. The staff represents a fairly good cross section of the average small hospital staff. Most of the men are general practitioners. At our clinic there are three groups of patients — those sent by the main cancer detection center, those brought in by our own doctors for diagnosis and a few who know of the clinic and come in of their own accord.

The clinic meets each Friday. Patients from the main cancer center and those coming in of their own accord are seen by the resident or intern the previous Wednesday, at which time the history and clinical findings are written, a Papanicolaou smear is taken if indicated and instructions in regard to enemas are given if a proctoscopic examination is to be done in the clinic.

In the clinic former patients are presented for a recheck and reports on former patients are given. Patients brought in by our own staff are presented by their own doctors. The resident or intern presents the patient seen the previous Wednesday, giving the history and physical findings. A staff member is assigned to each resident or intern. If a gynecological patient, then a doctor on the gynecological staff is assigned; if a general surgical case then a staff member of the surgical staff is assigned. The same procedure is followed with eye, skin, nose and other cases.

If there is any question of malignancy all the usual tests are made — biopsy, Papanicolaou smear, proctoscopic examination, transillumination of breasts, etc.

Many patients fear they have cancer. These are examined as carefully as those with obvious pathological changes, as they are sometimes more mentally disturbed than those with an actual cancer. If they have no regular family physician they are asked to return for a restudy, otherwise we attempt to return them to their own physician and we report our findings to him.

After a patient is examined the entire clinic group discusses the diagnosis and each member gives his recommendation as to treatment. After the clinical meeting the patient is given the recommendation of the clinic group. In a small community hospital we feel that this is an approach to an out patient department for the teaching of residents and interns.

In summary then, we would say, the value of a cancer detection clinic in a small hospital is three fold. First and most important is the value to the patient. The clinic usually functions as a consultation for the patient; second, is its teaching value to the doctors, residents and interns and third its contribution to the stability and reputation of the hospital as a teaching institution.

Chairman, Tumor Clinic, Ravenswood Hospital, Chicago.

PLANS FOR MEETING PROGRESSING

Arrangements are now well under way for the 1950 Annual Meeting and this should be the best annual meeting from the standpoint of arrangements, scientific programs and in attendance. For the first time the large State Armory is available for meeting purposes, and all general assembly meetings, scientific and commercial exhibits will be displayed under one roof. There will be a few special meetings, and perhaps a few short section meetings held in buildings nearby.

Three days after the application forms were received by prospective commercial exhibitors, all available spaces were sold, a new high in the sale of exhibit booths.

Applications for scientific exhibits have been received by the Committee on Scientific Exhibits, and their booths likewise will all be occupied, as has been the custom in recent annual meetings. There will be the usual motion pictures display also in the Armory, and these will be shown

regularly on each of the three days of the meeting.

The first meeting of the House of Delegates will be held at 3:00 P.M., Tuesday, May 23rd, and the second meeting on Thursday, May 25th at 9:00 A.M. Both meetings of the House will be held in the Abraham Lincoln Hotel ball room. Although the Springfield hotels have given ample assurance that there will be plenty of hotel rooms available, it is recommended that members expecting to attend the meeting make reservations as early as possible. This will help the hotel managements in determining actual needs. The headquarters hotel is the Abraham Lincoln, while the Leland and St. Nicholas, both modern hotels, are also a short distance from the Armory.

Members from all parts of the state should plan now to attend the big Andy Hall Annual Meeting, and secure hotel accommodations immediately in order that they may be assured that ample facilities are to be made available.

The following appointments have been made by Dr. Jacob E. Reisch, General Chairman of the Committee on Arrangements:

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THE LOAD IS ON MANY SHOULDERS

Talks against compulsory health insurance at the grass roots are one of the most important means of educating the American public. The Speakers' Bureau of the Committee on Medical Service and Public Relations has kept a record of all talks throughout the state which have been reported to that office during the educational campaign. Meetings have been scheduled and speakers furnished any group contacting the office. The list of men upon whom the committee can call to fill speaking engagements has grown. The more physicians willing to accept this responsibility and appear before groups composed of "from five to five hundred" the better the opportunity to reach any and all residents of Illinois.

The list given here is not complete. Many members of the profession as well as many members of the Woman's Auxiliary have made talks throughout the state that have not cleared through the Speakers' Bureau. One member of the Auxiliary in a small town appeared before some 35 or 40 groups during a six months period. We publish this list to show our membership that the efforts to educate the residents of Illinois are being carried on by many members of the profession. If YOU are willing to assume a portion of this responsibility, contact the Speakers' Bureau, Illinois State Medical Society, 185 North Wabash Avenue, Chicago 1, Illinois.

NAME	COUNTY	NUMBER OF SPEECHES
Aiken, Ralph C.	Southern (Cook)	6
Bartkowiak, Edmund T.	Stock Yards (Cook)	1
Blaine, Mrs. Walter C. (R.N.)	Douglas	3
Blodgett, Pliny R.	Southern (Cook)	12
Bondus, Thomas B.	South Chicago (Cook)	2
Bornemeier, Walter C.	Irving Park (Cook)	1
Bovik, Leslie E.	Lake	2
Braze, Alexander	Winnebago	1
Brosnan, John J.	South Chicago (Cook)	1
Butler, W. E.	Winnebago	3
Camp, Harold M.	Warren	7
Canfield, Bruce	Winnebago	2
Carney, Thomas B.	Henry	8
Coen, Walter W.	South Chicago (Cook)	2
Cole, Warren H.	North Side (Cook)	4
Coleman, Everett P.	Fulton	12
Compton, Mr. Don		1
Dewhirst, E. M.	Vermilion	3
Ellis, Mrs. R. B.	St. Clair	2
English, Harlan	Vermilion	8
Epsteen, Casper M.	South Chicago (Cook)	3
Fell, E. H.	Jackson Park (Cook)	1
Fillis, Ben E.	North Suburban (Cook)	1
Ford, W. K.	Winnebago	4
Fowler, Frank H.	Northwest (Cook)	1
Freeman, David B.	Rock Island	6
Friedell, Morris T.	Jackson Park (Cook)	4
Furey, Warren W.	South Chicago (Cook)	1
Gabby, S. L.	Kane	2
Goldberger, S. M.	Northwest (Cook)	2
Hardin, P.	Winnebago	3
Hawkins, Robert J.	West Side (Cook)	1
Hedge, Harry M.	North Suburban (Cook)	4
Heerens, R. E.	Winnebago	2
Hobart, Marcus H.	North Suburban (Cook)	4
Holman, D. O.	Winnebago	1
Hopkins, Percy E.	Englewood (Cook)	16
Hughes, L. J.	Kane	1
Hutton, James H.	Jackson Park (Cook)	2
Irons, Ernest	Jackson Park (Cook)	1
Ivy, Andrew C.	South Chicago (Cook)	1
Jones, Mr. Robert B.	La Salle	2
Kane, Jerry J.	St. Clair	1
Karr, John B.	Englewood (Cook)	2
Kearns, Jr., John E.	North Suburban (Cook)	1
Kidera, George J.	Aux Plaines (Cook)	14
Kirby, George E.	Bureau	16
Kloutz, Charles E.	Winnebago	3
Krause, Charles D.	Englewood (Cook)	1
Lane, Charles O.	Franklin	1
Larkin, Leo C.	Aux Plaines (Cook)	1
Lee, Robert E.	Calumet (Cook)	3
Lynn, Robert B.	Madison	3
McCarthy, Elmer V.	South Chicago (Cook)	8
McCready, Robert B.	Calumet (Cook)	2
McDonnough, Mrs. James M.		1
McEnery, E. T.	West Side (Cook)	1
McGavran, Harry G.	Adams	2
Maguire, Rod	Fulton	11
Maloney, J. H.	Winnebago	2
Maloney, W. Robert	Pike	3
Mantz, Harry	Madison	1
Miller, Harold W.	North Shore (Cook)	1
Monroe, Clarence W.	Aux Plaines (Cook)	1

Moore, Gordon F.	Madison	3
Mullen, Timothy F	La Salle	1
Mundt, G. Henry	Englewood (Cook)	1
Murphy, Frank G.	South Chicago (Cook)	2
Mustell, Robert R.	South Side (Cook)	4
Neal, Mr. John W.		7
Nicholas, Everett E.	Aux Plaines (Cook)	5
Nicholson, F. M.	Northwest (Cook)	4
O'Brien, George F.	South Chicago (Cook)	6
O'Neill, Joseph T.	La Salle	2
Palmer, W. H.	Winnebago	7
Parker, Martha	Vermilion	1
Pope, Charles E.	North Suburban (Cook)	2
Pritikin, R. I.	Winnebago	3
Przygocki, Stanley F.	Northwest (Cook)	1
Richardson, Mr. William A.	Rutherford, New Jersey	1
Saunders, H. Prather	North Shore (Cook)	1
Scatliff, H. Kenneth	North Shore (Cook)	2
Shapiro, Fred	North Shore (Cook)	1
Shriner, Mrs. Walter	Sangamon	7
Slaughter, Wayne B.	North Shore (Cook)	1
Slobe, Frederick W	Jackson Park (Cook)	1
Sodaro, Joseph C.	Aux Plaines (Cook)	4
Starcevich, Paul J.	South Chicago (Cook)	2
Steffen, C.	Winnebago	1
Stegen, Mr. Edward F		10
Stevenson, Walter	Adams	8
Stuart, Mr. Robert A		1
Sullivan, A. J.	Englewood (Cook)	3
Sweeney, Leo P. A	Calumet (Cook)	1
Szujewski, Henry A.	North Shore (Cook)	3
Thompson, Willard O.	North Side (Cook)	2
Timm, Harry E. L.	South Chicago (Cook)	11
Traut, Eugene F.	Aux Plaines (Cook)	2
Turner, E. C.	Carroll	4
Turner, Horace E.	North Shore (Cook)	1
Uhlenhop, Mr Henry L.	La Salle	8
Vaughn, Arkell M.	South Chicago (Cook)	2
Weir, H. F	Winnebago	3
Wellman, Garland O.	Winnebago	1
Westerdahl, Arvid E	Aux Plaines (Cook)	4
White, C. Paul	Henry	4
Wrork, D. H.	Winnebago	2

KIDNEY VISUALIZATION

In the diagnosis of renal lesions, one can use in addition to the plain films either intravenous or retrograde pyelography. While it is true that intravenous urography has been of distinct advantage in the diagnosis of lesions of the urinary tract, it should rarely be taken as the sole criterion in arriving at diagnoses of pathologic conditions. It is much more valuable in ruling out disease when the findings are normal than in establishing a diagnosis from apparently abnormal findings. We, therefore, prefer to have retrograde pyelograms whenever possible, and to correlate the appearance with the clinical data. This correlation is of paramount importance and no radiologist should be satisfied with seeing only the films. *Excerpt, The Roentgen Diagnosis of Lesions of the Urinary Tract. H. Dabney Kerr, M.D., professor of radiology, University of Iowa Medical College, Iowa City. Minnesota Medicine, November, 1949.*

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MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chmn., Hubert L. Allen, Emmet B. Bay, Edwin F. Baker, Carroll Birch, Thomas C. Browning, Roland R. Cross, James Graham, George Halperin, Edwin S. Hamilton, Ford K. Hick, Edwin F. Hirsch, May McDonald Milligan, Marie Wessels, Walter M. Whitaker, Holland Williamson.



Euthanasia

Euthanasia, a word derived from the Greek roots *eu,* meaning well or easy, and *thanatos* meaning death is defined as easy death or means of causing one, or in a broader sense the act or practice of painlessly killing persons suffering from an incurable and distressing disease. The second meaning, I believe, defines the field of discussion. The actual process of dying according to the observation of doctors, the clergy and laity is not physically painful, but rather occurs during a stupor like a profound sleep. From the earliest times the primary objective in the practice of the healing arts, that is, medicine, has been the restoration of health to a diseased body. Why should one sick, desire to have his body restored to the full or at least adequately functioning level considered to be health? This poses a basic question in the philosophies of living which has engaged our thinking from the ancients to the present time. It stems from the primary principle that each of us has the fundamental wish to live and to achieve in the living his quota of happiness and satisfaction. No one denies that health is a requisite in the enjoyment of living. Albert Schweitzer, the philosopher, the theologian, the musician, and the physician clearly has stated this principle. The most immediate fact of man's consciousness is his assertion that he has a life which wills-to-live in the midst of life which also wills-to-live. It is with this will-to-live in the midst of the will-to-live of others, that man sees himself during every moment which he spends in meditation on himself and the world around him. If man bids his will-to-live into a will-not-to-live as is done in all pessimistic thought, he contradicts himself and raises something unnatural to the position of his philosophy of life. When man affirms his will-to-live, he acts naturally and honestly; he devotes himself to his life with reverence in order to raise it to its true value: he accepts as being good: to preserve life, to promote life, to raise life to the highest level capable of development. This basic reverence for life, and the ethic of its philosophy has everything that can be described as love, devotion and sympathy, whether in joy, suffering or effort. A man is ethical only when the life of his fellowmen is as sacred to him as is his own, and when he devotes himself helpfully to all life that needs help. Happiness is the end in life toward which men strive, said Aristotle. Happiness for each is found in the best possible performance of the function for which he is adapted, and necessary for this is a body in relatively good health. The famous oath of Hippocrates stated, among other principles, that "I (the physician) will give no deadly

drug to any, though it be asked of me, nor will I counsel such."

The application of euthanasia, the act or practice of painlessly killing persons suffering from an incurable and distressing disease, has at least two elements: (1) the determination of what constitutes an incurable and distressing disease and (2) the means and choice of causing death painlessly.

To whom do we turn, if not to the medical profession, for a decision in both of these? But even prior to this process of analysis, the one upon whom judgment is to be made, must have posed some social problem to the community, relatives or friends, in which groups, stress relations toward the unfortunate must have developed and which proposed euthanasia as a means for solution. Uselessness or a menace to society, nursing, food and shelter are large elements in this thinking, and probably the actual misery of the individual himself has minor or no consideration. No one, lay or medical, either through actual experience or by other channels is ignorant of chronic illnesses or disabilities caused by malformations, accidents, nervous disorders, cancer and many other conditions. Medical experts are called to examine, to diagnose and to restore these individuals to adequate health. For a large number no measures for the restoration of this health level are known at the time, but do we pronounce a death sentence on some one afflicted because of ignorance in Medical Circles? Criminal law specifies the death sentence as the maximum punishment possible for an offense by the individual himself. We are not certain in denying an individual his will-to-live that presently the reasons on which his judgment was made, no longer exist, because in the meantime new and improved methods of therapy for treating these patients have been developed. Within our memory many new drugs have been found effective in treating infectious diseases, some of which may cripple the one afflicted. Among these, just to mention a few, are the sulphonamides, the antibiotics such as penicillin, and the antimalarial compounds. Think, too, of the great progress that has been made in the rehabilitation of those crippled by poliomyelitis, by amputations, and even congenital defects. Not so many years ago the so-called "basket amputees" were regarded as hopeless. Today prosthesis, helped by the determination on the part of the cripple to relearn, gets functioning legs under them and provides useful arms so that they return to society as active members — farmers, lawyers, or participants in other vocations.

When society chooses to deny the will-to-live to some of its members for reasons of euthanasia it moves toward the revolting position into which certain members of the medical profession sank in Nazi controlled Europe. The initial objectives of an euthanasia program easily drift into other reasons for this practice and presently reasons purported to be for other public good are presented. "Doctors of Infamy" by Alexander Mitscherlich and Fred Mielke is the documented story in book form of the Nazi medical crimes by which the torture and killing of human beings under the guise of medical experimentation was carried out and without the consent of the individuals. Here again the basic purpose was to remove from society by death certain individuals or groups defined as undesirable. In the practice of inflicting this wrong on the individuals, grew an attitude callous beyond human belief on the part of those who executed this practice. A review of the various forms of experimentation used is not necessary, the important feature is to recognize that they were motivated by sinister, practical, ulterior political and personal purposes, arising in the administration of totalitarian rule.

The reaction to the exposure of these callous practices lead the World Medical Association, comprising thirty-nine national medical societies, including our own American Medical Association at its second General Assembly meeting in Geneva, Switzerland, September 1948 to endorse a modern version of the Hippocratic Oath. This is it:

> "Now being admitted to the profession of medicine, I solemnly pledge to consecrate my life to the service of humanity. I will give respect and gratitude to my deserving teachers. I will practice medicine with conscience and dignity. The health and life of my patient will be my first consideration. I will hold in confidence all that my patient confides in me.
>
> "I will maintain the honor and the noble traditions of the medical profession. My colleagues will be as my brothers. I will not permit consideration of race, religion, nationality, party politics or social standing to in-

tervene between my duty and my patient. I will maintain the utmost respect for human life from the time of its conception. Even under threat I will not use my knowledge contrary to the laws of humanity.

"These promises I make freely and upon my honor."

The Bureau of Legal Medicine and Legislation of the American Medical Association has given these statements on euthanasia:

"The American Medical Association has taken no official position with respect to this subject, nor has any state passed any legislation concerning it. Several bills have been proposed in England to legalize so-called mercy deaths but no affirmative action has been taken. There is no legal justification or excuse for the practice of euthanasia even though it might seem the kindest thing to do. A physician, of course, may prescribe measures for an incurable patient that will ease his suffering and render his last days comfortable and his death painless but it must be remembered that the judicious use of drugs under such circumstances prolongs life more often than it hastens death.

"Assuming, however, that an incurable and suffering patient, of sound mind and mature years, feeling that he is a burden on those charged with his care and recognizing the hopelessness of his case, expresses a wish to be killed, a different situation arises. Certainly the question of life or death in such a case could not safely be left to be settled between the patient and his physician, even with the advice and consent of the patient's family. The family has an interest in the matter to be decided and therefore is disqualified to judge as to what should be done. The patient himself, although mentally sound with respect to other matters, is in many cases, because of his pain and suffering, not capable of determining the best course to be pursued. And no physician who has a proper sense of responsibility would accept the burden of making a decision. The physician who deliberately causes death prematurely even for the purpose of relieving suffering, is guilty of manslaughter or murder.

"Whether the law should legalize the causing of premature death for any purpose other than as a punishment for crime is a matter for legislative determination. It involves not only the rights of the individual but the social, economic and political interests of the state. It involves not only the cases of persons of sound mind or mature years, who themselves ask to be killed, but the cases, often far more pitiable, of children who will go through life as idiots or imbeciles, and hopelessly insane persons, who are unable to speak for themselves. Legislation of this character would certainly call for some sort of an official board to pass on applications for permission to be killed and it would have to set up the proper machinery for killing, in order to avoid abuse.

"The medical profession can advise as to whether a person is or is not doomed to a life of idiocy or imbecility, or must go through life as a lunatic, or endure a life of suffering and pain with absolutely no hope of surcease, but it is hardly called on to pass on the inherent social, economic and political considerations and to judge the situation as a whole. It is unlikely that the average practitioner of medicine would willingly serve as an executioner under any law that might be set up, in those cases in which the law did not authorize the suffering patient to commit suicide and provide him with the means to do so."

"The quality of mercy is not strained, it blesseth him that gives and him that takes." The reverse is also true. Practices applied to individuals drift into practices on groups; callous attitudes toward persons lives lead to similar attitudes in a society. The arguments used by the proponents of euthanasia hold that a life has no value, is worthless, hopelessly crippled or sick and that the necessary care entails cost, expenditure of time and energy, physical and emotional stress without purpose. But after all, are real values measured only in coins? Are they not, rather an unselfish service to those in need about us? This principle of conduct follows through the individual into group relations, and reflects its greatest benefit in the giver. This, in my opinion, is the medical view on euthanasia.—E. F. H.

STATE DEPARTMENT OF PUBLIC HEALTH



Board of Public Health Advisors

On December 3, 1949, Governor Stevenson appointed a new Board of Public Health Advisors, with membership as follows:

Edward A. Piszczek, M.D., Chicago, Chairman, James H. Hutton, M.D., Chicago, E. P. Coleman, M.D., Canton, Lloyd H. Dodd, D.D.S., Decatur, Edison Dick, Chicago.

Illinois law requires that there be a Board of Public Health Advisors, composed of five persons.

In these times of concern about the intervention of government in various areas of health service a review of the history of Boards of Health may be helpful in understanding the place of the Board of Public Health Advisors, the Department of Public and their inter-relationship.

The first Boards of Health in this country date from the Massachusetts Bay Colony. These early Boards of Health, in the United States as well as in other countries, were born out of the terror of raging epidemics. The people, in their great fear, gave unlimited powers to these formally constituted Boards when they consigned to them full executive legislative and judicial functions. According to the record, these broad powers were kept within reason. This happy result may be attributed to the integrity of the members of the Boards or to the fact that time ran out before autocratic methods could be put into abusive practice. The limitation of time was due to the practice of having a Board of Health only during the peak of the epidemic.

Later in the history of Public Health, — during the 19th century and following — Boards of Health became continuous. The whole Board usually met three or four times a year and in the interim the secretary carried on in behalf of the Board. As the accumulation of knowledge revealed that prevention of epidemics was dependent upon the continuous application of control measures, legally constituted Departments of Health were developed as the executive arm of the Board. With the growth of Public Health Law, the Director of the Department of Public Health has been vested by the legislature with authority and responsibility for administration of specified activities which have a bearing on the lives and health of the people.

At this time, the Illinois Department of Public Health has operating programs in the following categories of service:

Environmental Sanitation
- Stream pollution control
- Water supply control
- Insect and rodent control

Pasteurized and grade A milk
Local Health Administration
Hotel and Lodging House Inspection
Communicable Disease Control
Venereal Disease Control
Tuberculosis Control
Public Health Education
Public Health Nursing
Maternal and Child Health
Mental Health
Public Health Dentistry
Cancer and Heart Disease Control
Hospital Construction and Services
Industrial Hygiene
Laboratories
Vital Statistics and Records

To carry out these programs the 66th General Assembly appropriated funds for the operating budget of which the following amounts are available for the fiscal year ending June 30, 1950:

Personal Services	$ 1,445,909
Contractual Services	172,939
Office Expenses:	
Postage	57,150
Other	11,060
Travel	167,539
Commodities	166,928
Stationery, Printing, Office Supplies	128,872
Equipment	63,751
Contingencies	4,500
Hospital and Medical Services	29,790
Medical Preparations for Free Distribution	165,879
Grants to Local Governments	731,250
Permanent Improvements	75,000
Expenses Ohio River Valley Commission	5,040
Total Direct Appropriations	3,225,607
State Officers' Salaries	18,500
Total	$ 3,244,107

TOTAL FUNDS ALLOTTED TO ILLINOIS FOR YEAR ENDING JUNE 30, 1950

FEDERAL FOR OPERATION:	
General Health	$ 397,280.00
V. D. Control (Chicago 150,000.)	427,200.00
V. D. Rapid Treatment	27,916.00
V. D. Casefinding Project No. 9313	6,998.75
T. B. Control	275,692.00
Cancer Control	180,828.00
Mental Health	177,500.00
Heart Disease Control	76,812.00
Hospital Survey and Planning	17,560.00
Water Pollution	26,078.00
Total Public Health Services	$ 1,813,864.75
Maternal and Child Health:	
Total Children's Bureau	336,071.06
TOTAL FEDERAL OPERATION	$ 2,149,935.81
TOTAL STATE OP. FIRST YEAR	3,244,107.00
TOTAL AVAILABLE FOR OPERATION FISCAL YEAR ENDING JUNE 30, 1950	$ 5,394,042.81
FEDERAL FUNDS FOR HOSPITAL CONSTRUCTION	$ 4,723,670.00

ADDITIONAL SPECIFIC APPROPRIATIONS

Senate Bill 360	$ 5,000,000.00	- Payments for hospitalization of persons suffering from Tuberculosis.
Senate Bill 362	1,000,000.00	- Repairs, Rehabilitation, Alterations and Expansion of Public T. B. Hospitals & Sanitoria.
Senate Bill 680	759,835.00	- For completion of the construction of Mt. Vernon T. B. Hospital.
Senate Bill 680	225,000.00	- For Furnishings and Equipment for Mt. Vernon T. B. Hospital.
Senate Bill 680	3,000,000.00	- Grants-in-aid for construction of Public and Non-Profit Hospitals.
Senate Bill 655	4,850,000.00	- Reappropriated from S. B. 662, 65th Biennium for completion of construction of State T. B. Hospital in Cook County.
Senate Bill 655	543,183.64	- Reappropriated from S. B. 662, 65th Biennium for completion of construction of State T. B. Hospital at Mt. Vernon.

Thru Dept. of Finance upon Approval of the Health Dept.

Senate Bill 665	$ 4,035,275.55	- Reappropriated from S. B. 662, 65th Biennium. Grant-in-aid for Construction of Public and Non-Profit Hospitals.

From the foregoing tables of activities and monies it may be possible to gain some idea of the responsibilities of the Department and the Board of Public Health Advisors. Impossible to list, at this time, are new activities which might properly be undertaken and old ones which, in the light of changing experience, might be dropped. Advice of the Board and/or authority of the legislature are preliminary to such change.

It is not planned that the State Health Department will continue to grow in size in order to render elementary public health services directly to local communities. Rather, it is hoped

that direct and basic public health service can soon be available at the grassroots in all areas of the State through full-time local health departments. At this time, 66% of the population of Illinois lives in areas with local public health service, but only 24% of the land area of the State is so covered. The professional and technical staff of the existing local health departments carry on basic public health service as required by statute, local ordinance and advice of the local board of health. Prorated amounts of the 731,250 item listed above as "Grants to Local Governments" are allotted each full-time local health department to carry on these services which formerly were carried on by personnel employed at the State level.

State-level personnel are available at all times for consultation, program planning and evaluation and for direct service on such highly specialized activities as Industrial Hygiene, Hospital Inspection and Licensure, operating Tuberculosis and Dental Survey Units, stream pollution involving extensive geo-political areas and other health problems that the local staff does not meet sufficiently often in their immediate jurisdiction to keep them proficient.

From time to time, special additional grants are made to local health departments to carry on extraordinary programs which are locally desired but for which local funds may not be readily available.

It is a function of the State Department and it is an important part of the 12 Point Program of the American Medical Association to encourage the development of adequate local health departments. These units, in each local area can bring to the people and the practicing physician the technical and professional staff and the know-how to carry on Community Sanitation, Maternal and Child Health, Public Health Nursing, Venereal Disease Control, Laboratory Service, Communicable Disease Control, Public Health Education and assistance in meeting the ever growing complex problem of chronic disease and care of the aged. The local Board of Health, (which by law must include in its membership at least two physicians, licensed in Illinois to practice medicine in all of its phases and at least one dentist licensed in Illinois) may be the channel through which the physicians in the area come to grips with social factors which affect health and which can best be conquered by organized community action.

VICTIMS OF COLON DISEASE ARE LIABLE TO CANCER

Cancer tends to occur as a complication of chronic ulceration in the colon, two doctors from the Mayo Clinic, Rochester, Minn., say.

Writing in the Dec. 3, Journal of the American Medical Association, Drs. William G. Sauer and J. Arnold Bargen point out that sufferers from this condition of the colon should have periodic medical examinations.

The doctors report 41 cases in which cancer occurred as a complication of the disease, known medically as chronic ulcerative colitis. The cancers occurred both among men and women, with no particular affinity for either sex, the doctors say.

Chronic ulcerative colitis generally had been present about 16 years before cancer was discovered in these patients, according to the article.

Patients with long-standing chronic ulcerative colitis should be checked periodically by the maintenance of a complete history and by physical examination, laboratory tests, and x-ray inspection of the colon, the doctors say. These measures are advisable to insure the earliest possible detection of malignant developments, they add.

CORRESPONDENCE



"YOUR MENTAL HOSPITALS" THE TYPES OF MENTALLY DEFECTIVE

The types of mental defectives admitted to the institutions for the mentally retarded can be roughly grouped into three divisions:

1.—*The idiot and imbecile*: The treatment for this group resolves itself mainly into custodial care supplemented by habit training. The patient is given training, insofar as his eating and elimination habits are concerned. He is taught to dress and undress himself, bathe and oral hygiene. It has been found that this class of patient is not scholastically educable, and all that one can hope for is that the patient may some day return to society and be as little burden as possible to his relatives, as far as taking care of his personal needs. Rarely does this type of patient ever become self sustaining economically.

2.—*The higher grade mental defective*: This type of patient is scholastically educable to a limited degree. The Department of Welfare is employing the newest teaching technique for the mentally retarded, known as audio-visual training. By this technique, and other activities, the patient learns to be self sustaining economically in unskilled and semi-skilled work. This technique came into being when it was recognized that the retarded person cannot profit from the regular school program. This technique utilizes all the senses with constant repetition. It was realized that a mentally retarded person must be approached from a different viewpoint than a normal one. A normal child can read about an object and form a proper concept, but the mentally retarded one must first be shown the object, demonstrate how it is used with movies and sound equipment, and then it is possible for him to read about this object and form a good concept. This is also coupled with field trips which demonstrate the objects which are being studied.

3.—*The defective delinquent*: Their personality characteristics are such as to make them delinquent, intractable, and demanding of closer supervision, direction and retention in more secure building units. It is in this area that a good psychological and phychiatric therapeutic program is helpful. This group includes the duller individuals, who at times find their way to the St. Charles Home for Boys and the Geneva Training School for Girls.

G. A. Wiltrakis, M.D.
Deputy Director

THE AUXILIARY'S INTEREST IN LEGISLATION

The most important problem on the minds of many of us as 1950 begins is the future of medical care in this country. The proposed legislation and the efforts to pass it make for little peace of mind on the part of those who are aware of its implications. The Challenge of the New Year belongs to members of physicians'

families more than to any group. It is up to us to keep the true situation before others and to be as unemotional about it as possible.

Auxiliary members are united in a program of public relations and legislation which is attempting to bring the issues to many people. Every doctor's wife has an equal stake in the fight whether she is a member of the organized group or not. It is not a fight to protect medical incomes but rather to keep this country from making the mistakes many countries before us have made. Compulsory health insurance under whatever name it is given is the same in every country and has never itself improved the health of a nation.

The obligation which rests on every doctor's wife is the same. We must all be so well informed on the subject that we can speak to the point wherever it is brought up, at bridge or in the grocery store. We must never be guilty of saying—"I don't know very much about it".

The effort needed to be well informed is not great. Read the pamphlets prepared by Whitaker and Baxter which describe the suggested Federal Program and evaluate it accordingly. Read whatever articles you can and sift them for merit. Listen to any discussion of the issue and try to determine which arguments appeal to you. Repeat them to your friends.

Every labor union, trade association, civic club, and other interest group has recognized the fact that the men in Washington and in Springfield appreciate the value of the vote and listen to the 'Voice from Back Home'. In the words of the Past President of the Sangamon County Medical Society 'whether we like it or not we are in politics'. Our responsibility begins therefore, whenever we choose a man for office. In this crucial year we must actively see that only those who have made a statement against regimentation are elected. If we make sure that every member of our own families register and vote, as well as evey member of our friends' families and every member of the patients' families, the number of effective votes for the right men will be tremendous. We cannot let the people who stay home elect the wrong ones again.

It has been said that a continuing flow of letters to Washington is necessary to persuade Congress that the people don't want Socialized Medicine. We must not be lulled to sleep by the talk that it is a dead issue. It is in moments of inertia that such pieces of legislation are passed and no one knows quite how. Encourage everyone to send cards to their Congressmen and to the President against the passage of any bill calling for Compulsory Health Insurance. Be informed about the provisions of each bill. The men in Washington will be glad to send you copies of specific bills if you request them.

Doctors' wives can help by establishing booths in hospitals with literature and the Doctor—Keep Politics out of this Picture exhibit. Patients and visitors can be given postcards to send. All the groups to which you belong can be approched for resolutions and the members given the literature. The Program Chairmen can be urged to have speakers on the subject. Being generally alert to opportunities will pay great dividends.

In any discussion of legislation we must meet the statement that as members of doctors' families we have vested interests. We do. We are as much interested in maintaining the democratic way of life as anyone else. We are not status-quo-ers by any means. We are as interested in improving the standard of living as anyone else. We are interested in extending medical care. We feel that insurance is essential *But* it must be Voluntary. We need make no apology for discussing the doctors' side of this tremendous problem. Since doctors seem to be first in a chain of regimentation if we don't actively lead the fight against it, who will?

Too few people have ever heard of the AMA's Twelve Point Program. Too few people know what the Illinois State Medical Society is doing to see that those areas which have no doctors are supplied with them, namely the scholarship plan and the assistance which secured physicians for eighteen out of thirty communities needing them this year. The State Society is doing much to improve the health of the people. The Education Committee provides speakers on health subjects, prepares Health Talk and radio and television programs. The Public Relations Bureau will supply material and speakers to present our point of view.

Since it is impossible to separate legislation and public relations we must remember that as representatives of the profession we are under closer scrutiny than ever before. We must not be guilty of making the issue a personal one as one doctor's wife is supposed to have done when she

said if it passed she 'wouldn't get a fur coat next year!' We must help people to see that organized medicine is made up of individual doctors, their own family doctors, about whom they have very special feelings, who truly put the patients first.

Every doctor's wife is an ex officio member of the AMA legislation committee. If this is to be grass roots program of offensive effort to defeat Socialized medicine, compulsory health insurance or whatever it is called, we must talk to everybody about voluntary health insurance, why a federalized program would mean poorer medical care for everyone, the damage done to a democratic nation by such political maneuvering, and what Medicine itself is doing. If you don't know about these things you had better be finding out before bitter experience teaches all of us. Ruth Shriner (Mrs. Walter) Springfield, Ill.

ENDOCRINOLOGY, DIABETES, FEATURED AT ASSEMBLY

A postgraduate assembly in endocrinology including diabetes, sponsored by The Association For The Study Of Internal Secretions and The American Diabetes Association, will be held in Miami Beach, Florida, April 3-8, 1950.

The faculty will consist of 20 prominent researchers and clinicians in the field of endocrinology and metabolic disorders, gathered from the United States and Canada.

The course will be a practical one of interest and value to the specialist and those in general practice. The program will consist of lectures, clinics and demonstrations.

A fee of $75 will be charged for the entire course and the attendance will be limited to 100. Registration will be in the order of checks received and will close on March 3, 1950. Should there be an insufficient number of applicants to fill the course, the registration fee will be refunded immediately in its full amount.

Application for approval of this course has been made to the Veterans Administration. Veterans should make formal application to their local agencies on the appropriate form (1905c or 1950) as furnished by the V. A.

Please forward application on your letterhead together with check payable to The Association for the Study of Internal Secretions, to Henry H. Turner, M.D., Secretary-Treasurer, 1200 North Walker Street, Oklahoma City 3, Oklahoma, before March 3, 1950. Further information and program will be furnished upon request.

Hotel reservations should be made directly with the Roney Plaza Hotel, Miami Beach, Florida, and the hotel advised that you are attending this Post-graduate Assembly.

NATIONAL GASTROENTEROLOGICAL ASSOCIATION CONTEST

The National Gastroenterological Association again takes pleasure in announcing its Annual Cash Award Contest for 1950. One hundred dollars and a Certificate of Merit will be given for the best unpublished contribution on Gastroenterology or allied subjects. Certificates will also be awarded those physicians whose contributions are deemed worthy.

Contestants residing in the United States must be members of the American Medical Association. Those residing in foreign countries must be members of a similar organization in their own country. The winning contribution will be selected by a board of impartial judges and the award is to be made at the Annual Convention Banquet of the National Gastroenterological Association in October of 1950.

Certificates awarded to other physicians will be mailed to them. The decision of the judges will be final. The Association reserves the exclusive right of publishing the winning contribution, and those receiving Certificates of Merit, in its Official Publication, The Review of Gastroenterology.

All entries for the 1950 prize should be limited to 5,000 words, be typewritten in English, prepared in manuscript form, submitted in five copies accompanied by an entry letter, and must be received not later than June 1, 1950. Entries should be addressed to the National Gastroenterological Association, 1819 Broadway, New York 23, N. Y.

AMERICAN BOARD OF OPHTHALMOLOGY SCHEDULES TESTS

Candidates for the certificate of the American Board of Ophthalmology are accepted for examination on the evidence of a written qualify-

ing test. These tests are held annually in various parts of the United States.

Applications are now being accepted for the 1951 written test. They will be considered in order of receipt until the quota is filled. Address inquiries to 56 Ivie Road, Cape Cottage, Maine.

PRACTICAL EXAMINATIONS FOR ACCEPTABLE CANDIDATES 1950

Boston	May 22-26
Chicago	Oct. 2-6
West Coast	January, 1951

CLINICS FOR CRIPPLED CHILDREN FOR MARCH

Doctor Herbert R. Kobes, director of the University of Illinois Division of Services for Crippled Children has released the February schedule of clinics for physically handicapped children. The Division will conduct 15 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medical social and nursing services. There will be 4 special clinics for children with rheumatic fever and 2 for cerebral palsied children.

During 1949 children made 8,466 visits to general clinics, 556 to rheumatic fever clinics and 226 to cerebral palsy clinics. Attendance at rheumatic fever and cerebral palsy clinics is limited to invitations only.

Local medical and health organizations, both public and private, cooperate with the Division in providing this clinic service to Illinois' thousands of physically handicapped children. The examining clinicians are selected from private physicians who are certified Board members. Any private physician may refer or bring to a convenient clinic those children for whom he may want examinations or may want to receive consultative services.

The March clinics are:

March 1—Joliet, Will Co. TB Sanitarium
March 1—Alton, Alton Memorial Hospital
March 1—Rock Island (Cerebral Palsy), St. Anthony's Hospital
March 2—Pittsfield, Illini Community Hospital
March 8—Hinsdale, Hinsdale Sanitarium
March 8—Metropolis, American Legion Home
March 9—Anna, American Legion Home
March 9—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County
March 9—Springfield, St. John's Hospital
March 10—Chicago Heights (Rheumatic Fever), St. James Hospital
March 14—Peoria, St. Francis Hospital
March 14—E. St. Louis, St. Mary's Hospital
March 15—Sterling, Sterling Public Hospital
March 16—Rockford, St. Anthony's Hospital
March 21—Centralia, Franklin School
March 22—Evergreen Park, Little Company of Mary
March 22—Springfield (Cerebral Palsy), Memorial Hospital
March 23—Bloomington, St. Joseph's Hospital
March 24—Chicago Heights (Rheumatic Fever), St. James Hospital
March 28—Peoria, St. Francis Hospital
March 28—Effingham (Rheumatic Fever), Douglas Township Bldg.

RESIDENCY TRAINING REQUIREMENTS

The American Board of Obstetrics and Gynecology has not made nor is it contemplating any changes in its residency training requirements, despite rumors of an increase in training years. Eligibility requirements remain the same, namely, three years of acceptable formal training, followed by at least two years of post-training practice in the specialty.

Hospitals are inspected and approved for training jointly by the Council on Medical Education and Hospitals of the American Medical Association and this Board. Approvals are granted for training periods of one, two and three years depending on the available facilities and the findings of the survey inspections.

This Board has no objection to residency services being arranged by hospitals for periods longer than three years, unless this dilutes the candidate's clinical training opportunities too much during the first three years. However, the Board does not accept a fourth year, or more, of residency training as a substitute for any part of the required two years of post-training practice.

The importance of post-training practice in the specialty is emphasized as an opportunity for maturing of the candidate and for colleague appraisal of a man's ability when working on his own responsibility in his chosen community. The only exception to this ruling is in the case of men advancing from their training into full-time teaching positions. These men then must complete at least two years in such positions.

Copies of the Bulletin of this Board, outlining the above requirements in more detail, are available to hospital administrators or to candidates, upon application.

American Board of Obstetrics Zpb
Paul Titus, M.D., Secretary,
American Board of Obstetrics
and Gynecology,
1215 Highland Building,
Pittsburgh 6, Pennsylvania.

NEW FELLOWS OF INTERNATIONAL COLLEGE OF SURGEONS

The following named surgeons from Illinois were made Fellows and Associate Fellows in the United States Chapter, International College of Surgeons, at the Convocation ceremonies held during the Fourteenth Annual Assembly of the College in Atlantic City, New Jersey, November 7-11, 1949.

Certified Fellows:
Edgar T. Blair, M.D., Springfield
Nicholas J. Capos, M.D., Chicago
Edward M. Egan, M.D., Chicago
Kurt L. Eichelbaum, M.D., Chicago
Casper Morley Epsteen, M.D., Chicago
J. Major Greene, M.D., Chicago
William M. Hartman, M.D., Macomb
Allan Bonner Hirschtick, M.D., Chicago
Robert J. Hyslop, M.D., Freeport
Felix Jansey, M.D., Chicago
James Thomas Jenkins, M.D., Peoria
Henry P. Lattuada, M.D., Danville
Harold Laufman, M.D., Chicago
William Fred Lauten, M.D., Chicago
Robert Watson Lennon, M.D., Joliet
Elbert K. Lewis, M.D., Chicago
Josiah John Moore, M.D., Chicago
William H. Myers, M.D., Coal Valley
Anita E. Rapoport, M.D., Chicago
Theodore Morrison Shapira, M.D., Chicago
Harold E. Smith, M.D., Maywood
Samuel J. Turner, M.D., Chicago
George Z. Wickster, M.D., Oak Park
Joseph L. Wilkey, M.D., Chicago

Advanced to Rank of Certified Fellow:
Helen Louise Button, M.D., Chicago
James T. Case, M.D., Chicago
Henry Christiansen, M.D., Chicago
Maurice Hiam Cottle, M.D., Chicago
Franz Karl Fleischli, M.D., Springfield
Harry J. Fournier, M.D., Chicago
Frank Herman Fowler, M.D., Chicago
Morris T. Friedell, M.D., Chicago
Mace Gazda, M.D., Chicago
Lewis Albee Giffin, M.D., Alton
Samuel Lentine Governale, M.D., Chicago
William A. Hendricks, M.D., Chicago
Aaron Elias Kanter, M.D., Chicago
Paul J. Kullman, M.D., Chicago
Tadeusz Maryan Larkowski, M.D., Chicago
Ernest Oliver Larson, M.D., Chicago
Joseph Milton Levenson, M.D., Chicago
Ethelbert A. Lutton, M.D., Chicago
Rocco Anthony Masessa, M.D., Chicago
Louis D. Moorhead, M.D., Chicago
Richard Francis Murphy, M.D., Chicago
Harry A. Oberhelman, M.D., Chicago
Joseph M. A. Pape, M.D, Chicago
Norman Gittings Parry, M.D., Chicago
George J. Rukstinat, M.D., Chicago
Max S. Sadove, M.D., Chicago
Durand Smith, M.D., Chicago
Milan Michael Wasick, M.D., Chicago

Associates:
Samuel R. Barker, M.D., Chicago
Leonard Shelby Ceaser, M.D., Chicago
Frank Monarch Davis, M.D., Springfield
Martin A. Dolan, M.D., Chicago
Paul Mandel Egel, M.D., Chicago
Clarence A. Fleischli, M.D., Springfield
Leon T. Fruin, M.D., Normal
Max Manson Goldenberg, M.D., Belleville
John C. Havlik, M.D., Chicago
Gustav Anders Hemwall, M.D., Chicago
Julian Herson, M.D., Chicago
Apolonia Fermin Montezon, M.D., Chicago
Ralph Stoddard Sabine, M.D., Murphysboro
James E. Segraves, M.D., Chicago
Samuel Shapiro, M.D., Chicago
Thomas Slattery, M.D., Chicago
John R. Tambone, M.D., Woodstock
Joseph A. Teegarden, M.D., East Chicago
Sam C. Udell, M.D., Chicago
Morris L. Weinstein, M.D., Chicago

Advanced to Rank of Associate:
Julius Adler, M.D., Chicago
Ernest R. Blondis, M.D., Lemont
Rosario C. Drago, M.D., Chicago
Kyle C. Hawkins, M.D., Chicago
Charles F. Kramer, M.D., Chicago
Vincent F. Torczynski, M.D., Chicago

In addition, George F. Lull, M.D., and Bertha Van Hoosen, M.D., both of Chicago, were named Honorary Fellows in the International Chapters of the International College of Surgeons.

ORIGINAL ARTICLES



Immunization in Early Childhood

Louis W. Sauer, M.D. Ph.D.
Evanston

Simultaneous active immunization against diphtheria, tetanus and pertussis has become quite well established in recent years. The multiple antigen usually consists of diphtheria and tetanus toxoids mixed with pertussis vaccine, and is generally known as D.T.P. The addition of a retarding agent such as alum increases the efficiency. Alum-precipitated D.T.P. is a time-saver for physicians, parents and public health workers. For the infant it minimizes pain. The superiority of alum-precipitated D.T.P. is due to its prolonged retention in the body. Delayed absorption produces higher and more prolonged antibody levels. Systemic reactions are less likely to occur with slow absorbing than with fluid antigens. Earlier primary immunization can be achieved in more infants than could formerly be attained with fluid antigens. It is economical because with smaller doses the cost is less.

Assistant Professor of Pediatrics, Northwestern University Medical School, Chicago.

Read before the General Assembly Annual Meeting, Illinois State Medical Society, Chicago, May 17, 1949.

Optimum Age for Administration of D.T.P.— The American Public Health Association, The American Academy of Pediatrics and the Chicago Pediatric Society caution that immunization with multiple antigens should not be attempted during the earliest months of life. Because pertussis deaths and serious complications are most prevalent during the first twelve months of life, especially in infants in the lower economic group, earlier active immunization has been tried. When it is attempted before the sixth month of life, immunity tests should be performed about three months after the final dose to determine whether adequate immunity levels had been attained. Some young infants fail to utilize adequately the injected antigens. This is especially true when early immunization against diphtheria is attempted. Immune mothers transmit passive (transient) immunity to the offspring during the early months after birth; this antitoxin often exerts a neutralizing effect on injected toxoid. Waiting until the infant is six months old before administration of the first monthly dose of alum-precipitated

D.T.P. has several advantages. The diphtheria antitoxin response and the pertussis antibody level are better than when immunization is attempted earlier. Because three monthly doses of alum-precipitated D.T.P. often failed to yield protective levels* in infants injected before the sixth month of life, four monthly doses are recommended starting soon after the infant is 3 or 4 months old. Most infants in congested metropolitan areas and orphanages can now be protected by four monthly doses of alum-precipitated D.T.P. Advocates of early immunization stress that when immunization is delayed, the likelihood of contracting the disease is increased. If all of the other children in the household have had their basic immunization and booster doses, the chance that the nonimmune infant will develop the disease early is greatly reduced.

Reasons for Failure.—An occasional failure to confer immunity against pertussis may be due to several factors which can be controlled. These are (1) use of impotent strains of H. pertussis, (2) faulty preparation (i.e., use of distilled water instead of isotonic saline in suspending the H. pertussis cultures or weakening the vaccine by discarding the supernate, (3) loss of antigenicity by inadequate or frequent and prolonged interruption in refrigeration,** (4) insufficient dosage (During the first six months of life, 4 monthly doses are needed.), (5) improper administration technique (seepage), (6) exposure before adequate immunity has developed, (7) delay in booster doses, (8) diagnosis based on incomplete evidence (no cultures to differentiate pertussis from parapertussis, no white and differential blood counts to prove pertussis or to exclude influenza or other viral disease).

Prevention of Alum Cyst Formation.—Slow absorbing antigens (such as alum-precipitated D.T.P.) are best administered into alternate lateral gluteal areas, starting with the left proximal area. The most satisfactory needles are 25 gauge, ½ or ⅝ inch in length. Only distilled water should be used for rinsing syringes and needles. Sterilization is best attained by dry heat at 160C for 1 hour. If boiled in distilled water (at least 20 minutes), the needle and syringe should be free from moisture and cool. The skin is best cleansed with 70 per cent alcohol. Alum cysts have been eliminated almost completely by injecting deeply into the muscle mass, and terminating each dose with 0.1 cc. of air (Figure 1). Thus most of the antigen preparation is eliminated from the needle track. Prompt, gentle massage with sterile gauze over the injected area prevents seepage.



Figure 1. Alum precipitated D.T.P. is administered into alternate lateral gluteal areas; each dose (0.5 cc.) is terminated with 0.1 cc. air.

Prevention of Systemic Reaction.—Especially at the time of the first dose, each mother should be forewarned that a local or systemic reaction might occur. She should be told to offer water repeatedly, not force the next few feedings and, if the infant has fever, to avoid excessive covers and give one or more small doses of aspirin. To prevent untoward systemic reactions, injections should be omitted when there is a history of convulsions or when the infant is mentally retarded or defective. When there is general eczema, impetigo, furunculosis, or fever due to tonsillitis or other infection, injection should be postponed until recovery has taken place. Another reason for delay in antigen administration is that some premature and immature infants as well as those not thriving may develop

*A diphtheria antitoxin level of 0.2 unit/cc. or more is considered complete protection (0.004 units/cc. produces a negative Schick test). A tetanus antitoxin level of 0.1 unit/cc. is considered adequate to prevent tetanus. A serum agglutination level of 1:320 or better is accepted as ample for pertussis prevention.

**Since warm temperatures decrease antigenic potency, D.T.P. should be removed from refrigerator only for brief intervals when needed and returned promptly. Thermos food jars are satisfactory for transfer of D.T.P. to clinic or office; vials unused should be returned to refrigerator promptly. Date of expiration on each package should be checked before use.

transient anorexia if injected too early in life.

The occasional irreversible central nervous system reactions recently reported by Byers and Moll[2] and by Toomey[3] occurred mainly in infants who had had fluid antigen. In only one instance was a booster dose involved. Furthermore, during the early months of life it is frequently difficult to diagnose defects of the central nervous system due to congenital abnormalities or to birth trauma. If an untoward reaction occurs in a hypersensitive or allergic child, a dose of adrenalin should be administered promptly.

Booster Dose before Nursery School Attendance.—World War II proved the prophylactic value of tetanus toxoid. Three monthly doses of alum-precipitated D.T.P. (4 when started before 6 mos.) and follow-up testing of the serum proved that in most infants a basic protective level to tetanus antitoxin (0.1 unit/cc.) could be attained. Because in civil life tetanus infection may follow a minor injury, a booster dose is recommended at 2 to 3 years to insure an adequate antitoxin level before attendance in nursery school where minor accidents may occur. The use of alum-precipitated D.T.P. is preferred because thereby the immunity levels for diphtheria and pertussis are likewise stimulated.

Booster Dose before School Attendance.—As in the case of a booster dose administered before nursery school, a similar dose of (alum-precipitated) D.T.P. and a simultaneous smallpox revaccination are recommended at school age.

Booster Dose after Exposure of Previously Immunized Child.—Promptly after an injury which might produce tetanus infection, or after exposure to pertussis or to diphtheria, a booster dose of the specific antigen (fluid or alum-precipitated) should be administered to the previously immunized child. If more than two years have intervened between the last dose and the accident or exposure, use of fluid or alum-precipitated D.T.P. should stimulate the individual's resistance also against all three diseases.

Vaccination Against Smallpox.—The freshest possible vaccine should be used. It should be kept in the freezing compartment of an electric refrigerator or in a metal box in contact with ice. Smallpox vaccination should be performed a few months after completion of diphtheria, tetanus and pertussis immunization, preferably during the spring or autumn months. As a rule, primary smallpox vaccination should be delayed until primary immunization against diphtheria, tetanus and pertussis has been completed. For both sexes the preferred location for primary vaccination is the left upper arm at the deltoid insertion. The chief objection by mothers to give their consent for the arm vaccination in girls has been the fear of a conspicuous scar. Prerequisites for a small scar are (1) satisfactory cleansing of the site, (2) minimizing friction when cleansing, (3) implantation of the virus confined to a minute area, (4) multiple pressure technic without drawing blood, (5) excess of vaccine wiped away with sterile cotton or gauze after several minutes, (6) secondary infection prevented when the vaccination takes. The site should be kept dry for weeks.

TABLE 1. IMMUNIZATION SCHEDULE

Age	Antigen
6*mos.	D.T.P. (alum-pptd.)
7 mos.	D.T.P. (alum-pptd.)
8 mos.	D.T.P. (alum-pptd.)
9 to 12 mos.	Smallpox Vaccination
2 to 3 yrs. (Before nursery school)	D.T.P. (alum-pptd.) Booster Dose
5 to 6 yrs. (Before school)	D.T.P. (alum-pptd.) Booster Dose and Smallpox Revaccination
*If attempted earlier, start at 3 or 4 mos.	D.T.P. (alum-pptd.) 4 monthly doses
After known exposure of previously immunized	D.T.P. (fluid or alum-pptd.) Booster Dose (promptly)

Revaccination should be performed just above the scar of the primary vaccination at the time of the school booster dose of D.T.P. The latter may be administered deeply in the tissues of the right upper lateral arm. Cyst is less likely to follow if the needle is pointed distally and the site gently massaged.

Other Immunization Procedures.—Primary immunization against scarlet fever, typhoid fever, tick fever, etc., may be given when indicated. Booster doses or complete reimmunization in this group should be given when necessary.

SUMMARY

Simultaneous active immunization against diphtheria, tetanus and pertussis is effective. Three monthly doses of alum-precipitated D.T.P. are preferred. Best age for the initial dose is the sixth month of life. When earlier immunization is attempted, it should not be begun before the third or fourth month of life, and four monthly doses are recommended. A

booster dose of alum-precipitated D.T.P. is recommended before nursery school attendance, before school attendance, and after presumed exposure of the previously immunized. Smallpox vaccination should not be performed until completion of basic immunization against diphtheria, tetanus and pertussis. Immunizations against scarlet fever, typhoid fever and tick fever should be performed when indicated.

REFERENCES

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3. Toomey, J.: Reactions to Pertussis Vaccine, J.A.M.A. 139: 449, 1949.

Medicolegal Problems of the Clinical Laboratory

Samuel A. Levinson, M.D.
Chicago

There is no statutory law licensing medical technologists in Illinois, Indiana, Michigan, and Wisconsin. Hence, the problem of the legal practice of medical technology should terminate with this introductory statement. There are, however, statutory laws in California and Alabama licensing clinical pathologic laboratories, either privately owned or institutional, and the United States Public Health Service. Medical technologists engaged in the pursuit of their specialties in these respective institutions also come under the surveillance of licensing boards. On the basis of the California and Alabama statutes, we have the opportunity of discussing these respective laws as they apply to our problem of clinical laboratories and medical technologists. We may ask two questions: (1) Is there a need for the Tri-State Hospital Assembly to consider a state licensing act in reference to the licensing of medical technologists? (2) What effect, if any, will such a law have on bureaucratic tendencies and political dictatorship in regard to licensing of medical technologists and clinical laboratories? These two questions we shall discuss in more detail later.

Hospital Laboratories, Research and Educational Hospitals, University of Illinois College of Medicine.

Presented before the 19th Annual Tri-State Hospital Assembly, Chicago, Illinois, May 3, 1949.

The Council on Medical Education and Hospitals of the American Medical Association, the American Society of Clinical Pathologists, and the College of American Pathologists have formulated a program of standards for the approval of clinical laboratories and medical technologists. The former, by stated inspections of the hospitals in this country, are interested in the operational standards of hospital laboratories. The privately owned or so-called commercial laboratories escape inspection by organized medical groups that are interested in maintaining a high standard for scientific medical work. Here is a flaw in our standardized investigation of clinical laboratories, in that emphasis is placed on hospital laboratories where the standard of work is, as a rule, superior to that in privately owned laboratories which are not subjected to examination. The American Society of Clinical Pathologists and the College of American Pathologists cooperate with the American Medical Association as far as the minimum requirements for the conduct of hospital laboratories are concerned. But the societies of pathologists do not independently make these inspections nor have they authority to recommend improvements whenever it is indicated. In Illinois, through the Department of Public Health, the State has approved laboratories and certified both hospital and privately owned laboratories for specific

diagnostic procedures. These include serology, blood typing, dark field examinations, pneumococcus typing, tubercle bacilli examinations, and gonorrheal smears. This, of course, is not a certification of the laboratories so much as it is a method of determining the diagnostic acumen of the medical technologists. The laboratory profits by the technologist's ability to make correct diagnostic tests. Furthermore, the teeth in the law concerning approval for the specific diagnostic tests as specified in the Illinois State Department of Health carries weight because of pre-marital tests that these laboratories are called upon to perform. In order to have this work accepted by the County Clerk issuing a marriage certificate, the pre-marital examinations must be performed in laboratories which have received approval by the State Health Department. Although this procedure as of this moment has merit, there are many flaws in the certification of the laboratories by the State Health Department, because certification of a laboratory may be interpreted by physicians and lay people as a certification of all types of work. This is not correct. Tests in biological chemistry, hematology, bacteriology, and parasitology, various agglutination tests and serologic examinations are but a few of the vitally important procedures that do not come under the examinations asked for by the State Health Department for certification. It is conceivable that some physicians may interpret state certification of laboratories, as in Illinois, to imply complete diagnostic services including histopathology.

Since there is no statutory law governing the conduct of a clinical laboratory or the work performed by the medical technologist, there is, however, a set of principles by which the pathologist and the medical technologist work in harmony in performing diagnostic procedures of benefit to the patient. These principles stem from the time of Hippocrates and they have been formulated into a code of ethics, moral in nature, which has profited us thus far. It involves an obligation to society resulting in the confidence of the population in reference to the work performed in the clinical laboratories. This has been made possible by the unselfishness and integrity of the medical technologist toward her duties to mankind. It behooves the physician to uphold the spirit of the moral and ethical code maintained by the pathologist and medical technologist and to support them in maintaining these high standards which they have resolved to carry on without statutory laws.

Pathologists, with the assistance of the American Society of Clinical Pathologists and allied organizations plus the efforts of the registered medical technologists, have made valiant efforts to maintain these high standards. The medical profession should likewise continue to render service to their patients by insisting that their clinical laboratory diagnostic problems be performed by registered medical technologists. In this manner they will continue to perpetuate the ideals of the medical technologist. For example: in the preamble of the Code of Ethics of the Registry of Medical Technologists, there is this paragraph, "I am aware that since the physician relies upon my work in the diagnosis and treatment of disease, even a trivial error may affect seriously the health or even the life of a patient. Every procedure, therefore, must be carried out with thoughtfulness and accuracy. Knowing these things I recognize that my integrity and that of my profession must be pledged to the absolute reliability of my work. I realize that the knowledge obtained concerning individuals in the course of my work must be treated as confidential and since the physician has the ultimate responsibility in diagnosis and treatment, my results must be made known only to him or those designated by him." There is no such sentence or sentences as just quoted from the Code of Ethics of the Medical Technologists that appears in any law licensing medical technologists or clinical laboratories. These statements in the Code of Ethics are binding between the pathologists and the medical technologists in relationship to the patient and the physician.

The question may now be asked, what legal rights, if any, does the medical technologist have? The medical technologist in a hospital is responsible to the pathologist, but is an employee for the pathologist or the hospital depending upon who employs her. For a physician to practice medicine he must be licensed by the state. A nurse also obtains a license to practice her specialty. Licenses are issued for beauty parlor operators, barbers and various other sundry specialties. But the medical technologist performs precision work that requires years of preparation and continued study under the guid-

ance of a pathologist without control of licensing boards.

There are times when the charge of malpractice can be made against a pathologist because of some work performed by the medical technologist under his direction. Malpractice in pathology, as in other branches of medical sciences, occurs when a practitioner is guilty of dereliction in skill, knowledge, care, or judgment incident to the discharge of his professional duties (Moritz). For a court to charge such a dereliction as malpractice, it must in the opinion of other pathologists, fall below the "average practice". If it is demonstrated by a preponderance of evidence that an injury has been sustained as a direct result or failure on the part of the pathologist to discharge his professional responsibility at an average level, it is very probable that the court will find in favor of the claimant. If a pathologist through dereliction on his part makes a mistake in laboratory diagnosis and the attending physician administers improper treatment to the patient, relying on the diagnosis of the pathologist, the pathologist and not the physician becomes legally liable for the injury sustained by the patient. However, it is not relatively easy to make a categorical statement regarding the extent to which a pathologist might be responsible for the mistakes or negligence of his technicians. Moritz is of the opinion that it should be held that a pathologist is responsible for the actions of those working under his supervision. If this is correct, the pathologist is in an exceedingly vulnerable position in regards to malpractice. If he were sued because of a mistake made by his Wassermann technician, he would need to show that he conducted his laboratory and supervised the work of his technicians with an average degree of skill, knowledge, care, and judgment. If he had taken what other pathologists would agree were average precautions to see that his Wassermann technician did not make mistakes, he would probably be in a defensible position. This reasoning can be applied to every phase of laboratory diagnostic procedures. Skill and precision is required to operate a blood bank and an error by the medical technologist in the typing, cross-matching, and the transfusion of incompatible blood would place the pathologist and the medical technologist in a very questionable defensible position. These are but a few examples to show the cooperative teamwork which must exist between the pathologist and the medical technologist in performing skillful clinical laboratory diagnostic procedures.

Thus far the medical technologist has rendered service to the physician and patient without statutory laws. The medical profession should excercise every method possible to protect the quality of the work and the obligations of the registered medical technologist to continue to maintain the high standards of clinical laboratory diagnostic procedures for the benefit of mankind.

Let us now examine the questions formulated at the beginning of this discussion concerning the licensing of clinical laboratories and medical technologists. In the State of Illinois, as in the other states comprising the Tri-State Hospital Assembly, there are laboratories recognized by the American Medical Association and the American Society of Clinical Pathologists as training centers for medical technologists. These institutions have met a rigid standard of investigation. The pathologists and teachers in these institutions are qualified, the equipment for performing work is of a high standard, the prospective candidates for medical technologists are selected because they have a minimum background of training beyond the high school level, at least one year is spent in the laboratory under proper supervision, and finally these schools are operated for the sole purpose of scientific training without any remuneration except a nominal course fee. These institutions are not operated for profit and as such voluntarily devote their efforts for the benefit of humanity. Contrast this with the numerous privately owned commercial laboratories who profess to give courses in training in medical technology and make further claim that their graduates are comparable in training and experience with those from schools that are properly staffed and subjected to repeated investigation by governing bodies. Some of these commercial laboratory schools accept high school students and the training they receive is inadequate and poor, the tuition is excessive, and after three to six or nine months' training, depending on the students' exchequer, they are foisted on the public as medical technicians. Not only do they offer competition to properly trained medical technologists, but they believe they are competent and are to be trusted

with material submitted for diagnostic procedures. If we should ever have a statutory law licensing laboratories in the state, these mushroom laboratories may be given certification not only to operate as clinical diagnostic laboratories but for the training of medical technologists. Thus, all of the efforts in the past years to maintain a high level of medical education, with particular efforts to the training of medical technologists, would be lost by virtue of state licensing of all laboratories even though they may have a minimum requirement for operation.

There are two states, Alabama and California, that have statutory laws governing the registration of medical technicians and clinical laboratories. In Alabama the bill was introduced in 1936 and approved in 1937, enacting a law for the state registration of medical technicians. In this state, the law prescribes, "That a medical technician, within the meaning of this Act, is a person who is engaged in the practice of standardized or experimental technical procedures, the results of which are interpreted by the physician in the diagnosis of disease." The law further states that "the minimum educational prerequisites be one year of college, scholastic and laboratory work, with courses in chemistry, bacteriology and biology, and that the applicant has satisfactorily completed a full twelve months instruction in an approved training school for medical technicians, and upon a satisfactory completion of the training, and the examination of the applicant in the various departments of laboratory methods has been successful, the state will issue a certificate of registry authorizing him or her to practice the profession of medical technician in this state as a registered medical technician." The State of Alabama recognizes all medical technicians registered as such with the Registry of the American Society of Clinical Pathologists prior to October 1938 and will issue a certificate of certification to these individuals without examination. Governor's No. 153, Laws of 1936, of the State of Alabama states further, "The Board shall have the power to annul and revoke any certificate of registration for incompetency, intemperance, immorality, or unprofessional conduct on the part of the holder of such certificate, after a full and fair investigation of the charges preferred." There are provisions made in this Act that no other person shall assume the title "Registered Medical Technician" or any other letter or figure to indicate he or she is a registered medical technician. It shall be unlawful to practice in Alabama as a registered medical technician without a certificate currently in force. Then agan the law provides that any person practicing as a medical technician except under the immediate direction of a qualified doctor of medicine, or who violates any of the provisions of this Act, or who shall willfully make any false reports to the Board in applying for a certificate, shall be guilty of a misdemeanor and upon conviction thereof shall be fined not less than ten dollars and not more than five hundred dollars.

Up to this point one may direct attention to the emphasis placed on the qualifications of the medical technologist as far as training and ability to perform her duties are concerned. One may ask, is there an equal control of the schools training medical technologists. According to the Alabama law (Section 16), "Any training school for medical technicians which is listed and approved by the Council on Medical Education and Hospitals of the American Medical Association, shall be deemed an approved training school within the meaning thereof: If not so listed and approved the question of whether such training school has the standing and qualifications to meet the requirements of an approved training school within the meaning of this Act, shall be determined by the State Board of Censors of the Medical Association of the State of Alabama. The Board of Censors shall not approve for the purpose of this Act any training school unless the same is an institution laboratory (hospital, school, public health laboratory, biological laboratory, clinical laboratory) whose laboratory procedures are under the guidance of a qualified director and which maintains adequate equipment and space as well as a variety of specimens which must number not less than 1500 per month. Provided, however, that said Board of Censors may approve institution laboratories which provide less than 1500 specimens per month by requiring of applicants who have received the training thereat a proportionately longer period of training. In the case of hospital or clinical laboratory, the director of the laboratory must be a physician-pathologist; in the case of Board of Health Laboratories the director must hold a Ph.D., or a doctor of medicine degree." There is a statement in Sec-

tion 17 which is of interest, namely, that "the secretary-treasurer shall receive a salary commensurate with the duties performed, to be fixed by the Board. The members of the Board shall be reimbursed for all expenses incurred in attending meetings of the Board and that all fees collected by said Board shall be placed to the credit of a fund. Any funds remaining on hand after the payment of costs and expenses as in this Act provided, may be used by the Board for the purpose of elevating the standards of schools of training for medical technicians, and of promoting the educational and professional standards of medical technicians and of medical technology in this state."

Interpretation of such a provision stated in the Alabama Act for medical technologists comes as close to the ideals set forth by the Council on Medical Education and Hospitals of the American Medical Association, and the American Society of Clinical Pathologists and the Registry of this Society, as any of the proposed statutory legislation that I have had the opportunity to review. There is in this Act not only the purpose of developing medical technologists of a very high standard, registered by the State of Alabama, but a provision in the Act which calls for the training schools to meet the requirements of the aforementioned medical organizations. This Bill further provides that the medical technologist in the hospital must work under the supervision of a pathologist, and although there is no mention in the Act of privately owned commercial laboratories, there is an implication that such laboratories must be under the direction of a physician-pathologist.

In California, Chapter 804, Laws of 1937, there is an Act relating to the conduct of clinical laboratories and the licensing of clinical laboratory technologists for the purpose of protecting the public health. Such a purpose appears very laudable, but when one reads Section 1 of this bill, it states, "It shall be unlawful for any person, firm, association or corporation to conduct, maintain or operate a clinical laboratory as defined herein unless such clinical laboratory shall be under the immediate supervision and direction of a licensed clinical laboratory technologist as herein defined or of a person holding a valid and unrevoked physician's and surgeon's certificate issued under provisions of the State Medical Practice Act of this State." This sounds paradoxical as compared with the title of this Act which indicates that its purpose is to protect the public health, because Section 1 states very categorically, that the clinical laboratory shall be under the immediate supervision of a licensed technologist or a physician. The California Act defines a clinical laboratory as "any place, establishment or institution organized and operated for the practical application of one or more of the fundamental sciences by the use of specialized apparatus, equipment and methods for the purpose of obtaining scientific data which may be used as an aid to ascertain the presence, progress and source of disease." A clinical laboratory technologist is defined as "any person who engages in the work and direction of a clinical laboratory as herein defined," and a clinical laboratory technician according to the California Act is "any person other than a physician and surgeon who under the direction of a clinical laboratory technologist or a physician and surgeon, performs the technical procedure called for in a clinical laboratory as herein defined." Thus far it is an attempt according to the title of the California law to protect the public health of the people of California, but according to their own definitions of a clinical laboratory and the function of a medical technologist it seems that the protection of public health is not very thorough. The Act further states that the State Board of Public Health may issue a certificate of licensure as clinical laboratory technician to each person found by it to be properly qualified and is successful in either a written or practical examination. Nothing thus far has been said pertaining to the proper training of the technologist, or the schools where the technologists may receive their training, comparable to that now in existence under the Registry of the American Society of Clinical Pathologists. California law, in licensing technologists, states that any person who has for one year performed clinical laboratory work in a clinical laboratory in the State of California shall be granted a certificate of licensure as a clinical laboratory technician without examination; and it shall be unlawful for any person to act as a clinical laboratory technologist without certification as clinical laboratory technologist as provided herein. The Law states further, that it shall be unlawful for any one operating or maintaining a clinical laboratory to employ any technician ex-

cept those certified as provided for in this Act. On such a basis anyone who has spent one year in any hospital laboratory can qualify as a medical technician and anyone who can satisfy the California State Board that they can pass, according to their standards, a written or oral examination, receives a State Certificate as a medical technician or medical technologist. Thus, there is in California an attempt to control, by licensing, medical technicians or technologists, probably on a plan similar to licensing of any trade or profession by the State. To promote a similar law, to become enacted in our states comprising the Tri-State Hospital Assembly, would be to defeat the high educational efforts thus far maintained by the Registry of the American Society of Clinical Pathologists and the Council on Medical Education of the American Medical Association. There have been attempts made in some states to license technicians or technologists in a plan similar to that of California, but these bills did not pass. One bill was introduced in Florida in 1941, one in New York in 1947, and another in New Jersey in 1948. There may be some advantages in putting some procedures into effect whereby a physician desiring the services of a technician or technologist can have the assurance that the persons he employs to perform these duties is one properly qualified, such as, by state licensure. But as I have indicated, with the possible exception of Alabama, there is no law in any of the states that controls the training schools as well as the work of the technologist, as is now being done by the Registry of Medical Technologists. Our problem, therefore, is to persist and insist that the medical profession maintain their patients' interests and demand that the clinical laboratory service for their patients shall be in the hands of properly qualified personnel. If they desire technical help in their offices, they can insist that the person be registered by the American Society of Clinical Pathologists. If such cooperation is obtained from the medical profession in support of the standards adopted by the Registry of Medical Technologists, then there will be no need for state licensing boards controlling medical technologists. There are registries for physical therapy technicians and x-ray technicians, and these registries as well as others pertaining to the field of medicine can very assuredly be of service to physicians. The welfare of the patients will be protected because of the competency of the technicians' ability, maintained by the rigid standards of their respective specialties. The employment of such personnel will be encouraged if physicians and hospitals would cooperate with these groups and not employ any applicant unless certified by the Registry. Until such time when legislation is enacted licensing clinical laboratories, and prescribing proper educational controls for medical technicians and medical technologists as is now assured by the agencies mentioned above, we must continue on the scientific level as is now in force with continued support of the Registry of Medical Technologists.

CORRECTION! PLEASE NOTE

Because of a printing error, the name of James H. Appleman, M.D., Chicago did not appear as co-author of the article "Dyslexia From the Physical Viewpoint" which was published on page 30 of the January 1950 issue of the Journal.

We regret this omission. Dr. Appleman's name will appear on the reprints, and will also be listed as co-author in the volume index published in June 1950.

The Bladder in Pregnancy

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The purpose of this paper is to summarize the management of the bladder through-out pregnancy and the puerperium. We believe that too little attention has been given this subject in the literature. Perhaps some of the substance of this paper and the pertinent facts herein may appear as obvious deductions. However, in spite of this possibility, I think a remainder of the role that the bladder plays in pregnancy will be of some benefit to all of us.

To-day the bladder is not forced to take all the abuse during pregnancy and delivery that it did in the past. Now, one seldom sees the many types of bladder, urethra, and vaginal fistula formations due to mismanaged vaginal deliveries. Better prenatal care has resulted in earlier diagnosis of abnormal presentations and cephalopelvic disproportions. The advent of antibiotics and chemotherapy have made late caesarean section safer than a difficult and forceful vaginal delivery. It is an accepted principle that a fully dilated cervix and an adequate episiotomy are necessary for all vaginal deliveries. These have all contributed to the safety of the bladder.

Because of its crucial anatomical position in relationship to the pelvis and the pregnant uterus, the bladder is often injured despite all precautions. A full bladder during pregnancy and labor produces much unnecessary discomfort to the patient. Sometimes even well conducted deliveries may produce complicating cystoceles with or without the distressing and embarrasing stress incontinence.

Anatomy: The urinary bladder is a hollow viscus, whose form, size, and position varies with the amount of urine it contains, and the period of gestation. The average bladder is capable of holding, without distention, about 500 cc. of urine. The adult organ in an empty condition lies at the level of the oblique plane of the pelvic inlet. Filled, it rises into the abdomen. In pregnancy, especially after the fourth month of gestation, even the empty bladder is an abdominal organ.

The bladder is supported abdominally by the so called false ligaments which are merely folds of the peritoneum on the superior, lateral and posterior surfaces; the middle umbilical ligaments which are the remains of the uracus; and the lateral umbilical ligaments which are the remains of the obliterated umbilical arteries. These act as a guide in maintaining the bladder against the abdominal wall. Conditions causing excessively enlarged abdomens and multiple pregnancies disturb these supports.

The pelvic support of the bladder is chiefly the visceral layer of the pelvic fascias, or the retinaculum uteri, or endopelvic fascia. Chief of these are the pubovesical and vesicouterine. The uterosacral and cardinal ligaments also aid in bladder support. Too early bearing down or forceful deliveries with a cervix not fully dilated will cause a tearing of these ligaments, with a stripping of the bladder from the fascial supports. This is one of the main causes in the cystocele formation.

The vaginal supports are chiefly the urogenital diaphragm and the levator ani. The perineal body fuses these supports in its central position between the vagina and rectum. Forceful or too rapid delivery before the vagina is properly dilated, especially with an inadequate episiotomy, will cause a rupture of the perineal body and an over stretching or tearing of these supports. There is then a sagging of the urogenital diaphragm. This increases the cystocele and urethrocele formation and is probably one of the main causes of stress incontinence. This latter complication is probably one of the most distressing end results associated with child birth. Thompson, Savage, Holt, Lesshaft and Smith believe that injury to the pubococcygeus portion of the levator ani, plus the deep transverse perinei

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muscle would be the most important factor to produce cystocele and stress incontinence. They believe that continence, or bladder control, depends on the ability of the bladder base to desend to initiate urination and to return to its normal level to stop the act. If this ability is lost and the bladder base is on a level with the sphincter, the premicturition condition is present and a further descent by cough or body movement in an up-right position causes the spilling of urine or what is called stress incontinence. Other explanations are given. Bonny deduced that urinary loss resulted from a sagging of the bladder neck due to stretching of the pubo cervical fascia. Phaneuf, Hefferman and Kasdon refer to stress incontinence as a condition that occurs when the sphincteric action of the bladder neck and urethra has been impaired by childbirth. Kennedy believes it is due to trauma to the inner and middle third of the sphincters of the urethra causing them to be partially fixed by fine bands to the posterior lateral margins of the adjacent pubic rami.

Definite physiological changes occur in the bladder and urethra in pregnancy, but not in the same degree as the changes in the uterus, cervix and vagina. Few changes occur before the 4th month, after which time the increased size of the uterus, hyperemia and hyperplasia of the bladder muscle and its connective tissue, brings an elevation of the trigone with a thickening of its posterior or interureteric margin. This continues to the end of pregnancy. There is little change in the mucosa, but the blood vessels increase in size and tortuosity. The bladder is influenced by the usual hormonal changes of pregnancy, but not to the same degree as the ureters and the kidney. There is an atony of the bladder musculature. The dextro-rotation of the uterus pushes the bladder to the right of the midline in about 80% of the cases.

In the early antepartum period, a full urinary bladder has been mistaken for an enlarged uterus or an ovarian cyst. Care must be taken to insure bladder emptying or catheterization before examination.

Bladder symptoms may arise at anytime during pregnancy. Frequency of urination may occur in the second and third months by pressure of the pregnancy, by dextrorotation of the uterus, and diminshed capacity of the bladder. Examination of the urine at this time will rule out a urinary infection. Cystitis may be present during pregnancy, generally in the last half and most always associated with a pylonephritis. Sudden onset of frequent, painful urination associated with lumbar pains, chills, and fever are diagnostic of this disturbance. The antibiotics and sulfonimides generally produce a rapid control of the infection.

One of the most serious complications to the bladder early in pregnancy is that produced by an incarcerated uterus, which fills the pelvic cavity and gives rise to characteristic symptoms. these are: pains in the lower abdomen and back. disturbances of the functions of the urethra and bladder causing ischuria, which gradually increases until paradoxical incontinence occurs. If this condition is not soon relieved, the symptoms become more intense and bloody urine is passed. Eventually gangrene may result with necrotic portions of the bladder mucosa being expelled through the urethra with cramp like pains. In some cases the weakened walls of the bladder are unable to withstand the distention and rupture may occur, followed by peritonitis.

We wish to cite two cases of incarcerated uteri and our managment. Mrs. A. G. (No.46-1813). was admitted to the hospital with the history of being unable to urinate. She was catheterized frequently for five days with no improvement. Amounts up to 1500 and 1700 cc. were obtained at various times. Two attempts were made, one under gas anesthesia to correct the incarcerated 4 month pregnant uterus, but both failed. A laporatomy was performed and the gravid uterus lifted up easily after freeing a few bands of adhesions. The patient made an uneventful recovery and was discharged on her eighth post surgical day. Catheterization was only necessary for two post surgical days. She went on to term and delivered spontaneously on 9/2/46.

The second case was a Mrs. E. E. (No. 46-7590) admitted to the hospital 3½ months pregnant and unable to urinate because of an incarcerated uterus. Under gas anesthesia the retroflexed incarcerated uterus was corrected and the vagina packed. A retention catheter was left in the bladder and the patient made an uneventful recovery. She was discharged on her sixth hospital day, voiding without difficulty. She delivered uneventfully 3/17/47.

H. H. Fouracre Barns believes that the distended bladder caused by an incarcerated uterus should be decompressed slowly by continuous catheterization. Successive twenty-four to forty-eight hour trials of postural treatment and the use of a vaginal pessary is then attempted. If this is not sufficient, manual reposition is necessary.

Greenhill states that he has rarely had to elevate a retroflexed pregnant uterus or insert a pessary. He has done so only in cases of obstruction of urine, and has operated only once for an adherent retroflexed uterus with blockage of urine. In nearly all pregnant women the retroflexed uterus rises out of the pelvis spontaneously and manipulation of the uterus is not necessary. He believes that more harm has been done by forcible efforts to elevate the retroflexed pregnant uterus than by not interfering.

The bladder in labor can be discussed for each stage. Titus has stated that a distended bladder may delay the first stage of labor by minimizing the effectiveness of the pains and produce a secondary inertia, acting as a serious impediment to progress in all three stages. The upward retraction of the bladder and the mechanical obstruction or pressure from the advancing head beneath the bladder and urethra are responsible for failure to void. Parodoxical incontinence or the frequent repeated involuntary passage of urine during pains should be taken as evidence of an over distended bladder.

A full bladder in labor may be mistaken for the dilated lower uterine segment with a pathologic retraction ring and threatened uterine rupture because of the sharp cramp like pains and tension of the supra-pubic region. No. N. 8464 — Mrs. D. M. age 26, grava 11, para 1, due date 7/20/47. Entered hospital 1:30 AM on 7/16-/47. with ineffectual pains 5-7 minutes apart for ½ minute. Rectal examination revealed 2 cm. dilatation, head in a high minus position. After 27 hours in first stage, patient appeared in great pain, was restless and noisy. She had been passing frequent small amounts of urine. Abdomen was moderately tense and contracted all the time, extremely tender suprapubically. Rectal examination revealed what appeared as a bulging bag with cervix 7-8 cm. dilated with head not engaged, and pains almost continuous. Diagnosis — threatened rupture of lower uterine segment appeared as a possibility. However, a full bladder obstructing delivery appeared more likely. Catheterization relieved the extreme discomfort of the patient and the abdominal tension, and the contractions assumed a normal course with resulting rupture of the membranes and a rapid delivery.

Kantor, Miller and Dunlap believe that a full urinary bladder may obstruct labor until the presenting part lies deep in the pelvis, after this time the bladder becomes an abdominal organ and routine catheterization is not needed at this time. They believe more-over that retention of some urine may protect the bladder from undue pressure against the symphysis. However, routine catheterization every four hours during labor and before delivery is advisable in most cases.

DeLee and Greenhill state that a cystocele may prolapse before the advancing head and delay labor. It has been punctured for the bag of water, and torn off as a tumor. No. 30257 — Mrs. A. B. age 33, grava 111, para 11, due date 9/1/44. Entered the hospital 4:30 AM 8/30/44. Pains irregular, with 2-3 cm. dilatation and presenting part in a high minus station. Patient had been urinating frequently. No palpatable supra pubic mass that would suggest a full bladder was present. However, patient was restless and complaining of a severe abdominal pain. Rectal examination was unsatisfactory, dilatation and position were indefinite. Frequency of pains was uncertain because of a sensative hard abdomen with a hard mass in lower right quadrant. X-ray was ordered, but because of the extreme discomfort of the mother a steril vaginal was ordered. This examination revealed a soft, bulging mass; the cervix and the head or presenting part were not palpatable. A small amount of vaginal discharge was present so a previous rupture of bag of waters was suggested. The impulse to rupture this bulging mass was thus controlled and catheterization was done. As the bladder emptied, the head engaged and descended rapidly, delivering as a R.O.P.

Bloody urine in the second stage is generally due to cephalopelvic disproportion, the bladder being caught between the presenting part and the symphysis during strong uterine contractions. If this pressure is allowed to continue, serious damage to the bladder would result, such as bladder necrosis and fistula formation.

The distress produced by a distended bladder is generally temporary, while the distress produced by traumatic injury to the bladder is almost always permanent.

Titus refers to a case of a distended bladder in the third stage that interfered with the expression of the placenta for five hours. The placenta was expressed after catheterization with removal of thirty-eight ounces of urine. DeLee and Greenhill confirm that a full bladder can be an obstacle for placental delivery.

Last but not least in importance is the postpartum bladder, because when neglected it is associated with severe discomfort to the patient and can be the cause of a prolonged bladder infection. Edema of the trigone, and direct trauma to the urethra occur frequently in well managed obstetrics. Decreased bladder tone and less intra-abdominal pressure account for a greater quantity of urine to accumulate. Titus has stated that retention of urine following delivery is a frequent complaint, and any patient whose uterus, during the early hours of puerperium, is found displaced upward, or to one side and who passes small amounts of urine at frequent intervals has a distended bladder. Nurses and Doctors are remiss who do not recall this and who fail also to remember that the bruising of the base of the bladder and urethra, vaginal trauma and hemorrhoids, may impair a patient's usual sensations so much that she may be unable to realize her need to void. This involutary passage of small amounts of urine is known as paradoxical incontinence and is merely an over flow of a distended bladder.

The same care to determine the condition of the postpartum uterus with relation to bleeding should be given the bladder in relation to complete emptying for the first 24 to 48 hours. The responsibility for this rests entirely with the attending physician and not with the nursing, resident, and interne staff. It is his business to keep others alert to the problem and confirm by his own examination. Any evidence of a soft fluctuant supra-pubic mass should be diagnosed as a full urinary bladder and catheterized even though the patient has been passing frequent small amounts of urine. The catheterization should be performed with care, skill and sterile precautions. Some believe a soft mushroom catheter should be used and removed only after less than 50 cc. remain as a residual. Instillation of argyrole like preparations should be used at the discretion of the attendant. To-day early ambulation or allowing the patient to sit upright has aided the early emptying of the bladder. The use of chemotherapy and antibiotics are a good adjunct in any case of suspected bladder complications.

No. 432, Mrs. H. S., age 28, gravida 1, para 0, due date September 30, 1927 entered hospital 7:00 PM 10/6/27. Pains 3-5 minutes, 2-3 cm dilatation with head in minus one station. Early bearing down was encouraged before full dilatation, with subsequent hemorrhoidal formation and edema of the perineum. After twelve hours of labor, mid forceps were applied without an episiotomy. Delivery of an 8 lb male child at 5:30 AM 10/7/27. An extensive second degree tear occurred plus a partial rectal prolapse. Frequent urination was present on the first and second post partum days. The patient was very uncomfortable and restless. The abdomen appeared enlarged but was thought to be the uterus by the attending physician. After forty hours of agony the physician suggested catheterization and seventy two ounces of urine were removed. Catheterization continued for 12 days. The bladder was automatically emptied at intervals for over two months before the normal urge or desire returned. A very unfortunate and avoidable complication.

Perhaps Dr. DeLee was thinking of the female bladder as well as the general welfare of the baby and mother when he coined the phrase "non vi sed arte" (not with force but skill). Certainly nothing else quite sums up the most important principle that will save the bladder from serious and permanent injury. It is the failure to adhere to this fact that strips the bladder from its pelvic attachments and over stretches or tears the urogenital diaphragm, perineal body and the levator ani. Intelligent expectancy with better managed long labors, fewer difficult forceps and freer use of late sections with the use of chemotherapy and antibiotics have upheld Dr. DeLee's excellent example and made bladder damage less frequent and less serious than before.

SUMMARY

The care of the bladder is discussed during the pregnancy and puerperium. Five cases are reported, two antepartum, two intrapartum and one postpartum.

CONCLUSIONS

1. Better obstetrics has spared the bladder many injuries.

2. Better understanding of anatomy and physiological changes of the bladder are needed for its protection.

3. Conservative care for management of bladder associated with incarcerated uterus in first trimester is advocated.

4. Systematic catheterization and care of the bladder in first stage saves the mother from unnecessary pain and favors a more normal labor and should be included in the routine of the rectal examination. The routine catheterization of the bladder before delivery is advisable.

5. Full bladder in second stage can simulate a threatened rupture of lower uterine segment.

6. Cystocele and prolapse of a full bladder in 2nd stage delays labor and is in a critical position to be seriously injured.

7. Not with force but with skill is the most important consideration for vaginal deliveries to protect the bladder from all types of injuries.

8. Paradoxical incontinence must never be confused with normal or satisfactory bladder control.

9. The care of the postpartum bladder is just as important as in other stages of labor for the comfort of the patient and the prevention of serious bladder infections.

10. The responsibility for the care and protection of the bladder rests entirely with the obstetrician and not with the others in attendance.

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Persistent Patent Ductus Arteriosus

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The symptoms caused by a perisistent patent ductus arteriosus dramatically disappear when the ductus is ligated.

A patent ductus arteriosus is normal in the newborn and the foetus, but is pathological in childhood and in the adult.

The ductus arteriosus is the vessel (artery) which connects the pulmonary artery with the aorta and whose function it is during foetal life to shunt the blood coming from the right ventricle away from the non-functioning lungs into the systemic system. Normally, the ductus arteriosus becomes obliterated shortly after birth, that is shortly after respiration has been established and the lesser or pulmonary circulatory system is called upon to take up its active part in the body's physiology.

The ill effects of a persistent ductus arteriosus vary from minimal or actually none to very severe, depending mainly on the size of the arterial shunt. The harmful consequences are due to two factors:

1. the damage produced by the mechanical changes brought about by the patent ductus.
2. the increased danger of the development of a sub-acute bacterial endocarditis, or more correctly termed, endarteritis.

Let us first consider the harmful results of the patent ductus arteriosus due to the mechanical factors.

In foetal life, the ductus carries the blood from the pulmonary artery into the aorta. As soon as the lungs expand and respiration takes place, there comes about a change in the relative blood pressures of the aortic (systemic) circulation as compared to the pulmonary circulation. The pressure in the systemic circulation rises and in the pulmonary circulation falls. Thus the blood pressure in the aorta is higher than in the pulmonary artery, and therefore the direction of the flow of blood in the patent ductus becomes reversed. So much higher is the pressure in the systemic circulation than that in the pulmonary artery, that even in diastole, blood may be propelled into the pulmonary artery.

If the size of the persistent patent ductus arteriosus is small, only a small quantity of blood will flow back from the aorta into the pulmonary artery. If this is so, only a small amount of blood will be lost from the systemic circulation and the added burden to the left ventricle will be little. The left ventricle will beat with but slightly more effort than before. The diastolic pressure in the descending aorta will drop but slightly. In the pulmonary system the effects also will be minimal. A little more blood will be forced into the pulmonary artery, even tho both the right ventricle and the left ventricle, via the shunt, are supplying the blood. The pressure in the pulmonary artery will be but slightly elevated, and thus the burden on the right ventricle will be but slightly increased.

Thus a person with a persistent patent ductus arteriosus can lead a practically normal life as long as the diameter of the patent ductus is small, and except for the increased danger of developing a sub-acute bacterial endocarditis, is not greatly jeopardized by this malformation. In fact, many a person has lived his life without ever suspecting the presence of such a lesion.

However, in a certain number of instances, the patent ductus is large. The amount of blood shunted from the aorta into the pulmonary artery may be from a third to a half of the total blood pumped out of the left ventricle. Then the mechanical changes in the circulation cause the marked symptoms which bring the patient to a doctor for help.

When the shunt from the aorta into the pulmonary artery is large, the left ventricle is forced to pump more blood into the systemic circulation to supply the needs of the blood, to compensate for the blood lost through the shunt. The pressure in the pulmonary artery rises and calls for a greater effort on the part of the right ventricle

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Presented at Post-Graduate Conference Rockford, Illinois, Nov. 10, 1948.

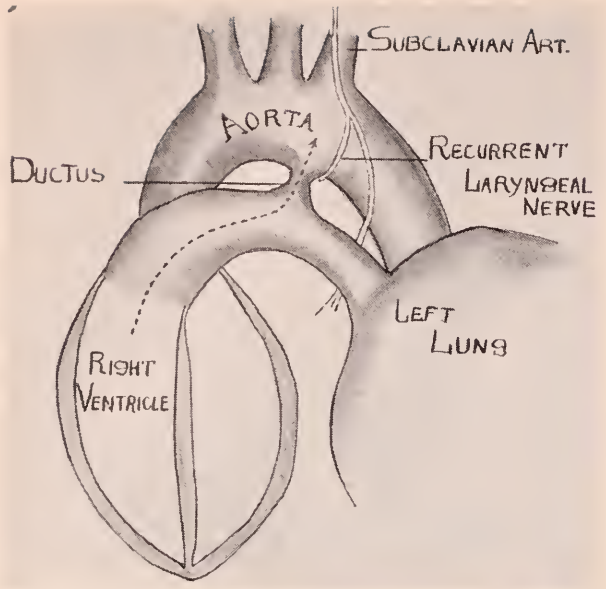


Figure 1. Normal condition of heart and large vessels in the foetus, showing the patent ductus and the direction of the blood stream from the right ventricle into both the lungs and the aorta.

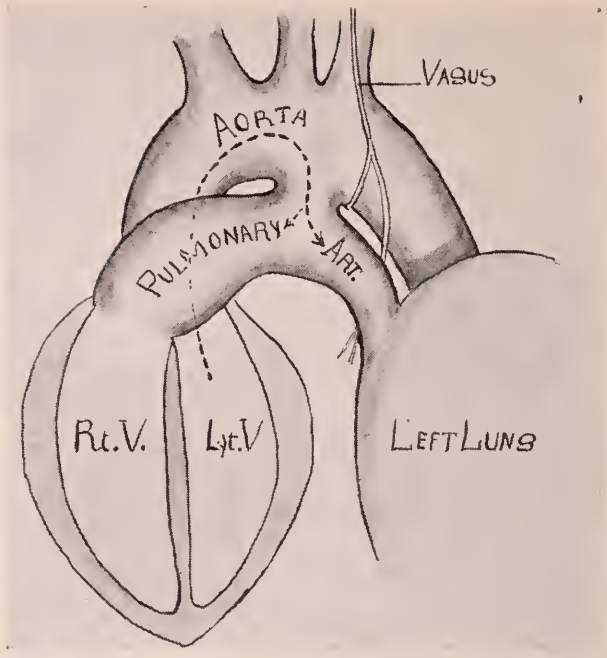


Figure 2. Blood flow in the presence of a persistent patent ductus arteriosus showing the regurgitation of blood from the aorta into the pulmonary circulation.

to empty itself. Life is maintained by a gradually developing cardiac hypertrophy. Sooner or later, the increased burden on the heart begins to tell, and failure of the heart muscle to perform the excessive task demanded manifests itself.

The symptoms of a patent ductus arteriosus usually appear gradually and not until the child is old enougth to be active — usually not until school age.

In most of the patients that I have seen, the first thing noticed which made the parents think that something might be amiss with the child's health was the fact that the child was puny, smaller than other children of the same age. Later, the parents notice that the child is not as eager to enter active games as other children. This is, of course, more noticeable if the patient is a boy. If urged, the child will be active for a short time, but will tire more quickly than the normal child. The child will become dyspnoeic on less and less exertion, and may complain of palpitation. Children with large patent ducti seem more prone to respiriatory disease.

On examination, the child may not only be undersized, but seem malnourished. There will be no cyanosis. This is to be expected because it is not unoxygenated blood which gets into the general circulation but oxygenated blood which gets back into the pulmonary circulation thru the ductal shunt. Neither is there clubbing of the fingers. A tentative diagnosis can frequently be made simply by placing the hand upon the child's bare left chest. The thrill resulting from the large amount of blood rushing out of the aorta thru the ductus is so obvious and so startling that once felt will always be remembered. This thrill is of greatest intensity over the second interspace just below the left clavicle. With the stethoscopic, the well-known "machinery murmur" will be heard. This murmur is well named, and sounds for all the world as if a newspaper press were running inside the chest. It is a continuous, rough murmur with a slight systolic accentuation. It is best heard in the second left interspace in about the mid-clavicular line. It is transmitted upwards along the vessels of the neck and backwards to the intra-scapular regions. It is even more obvious and startling than the palpable thrill. On percussion, the heart will be found enlarged and this will be confirmed by x-ray. X-ray will show the enlargement to be due not only to the increase in size of the left ventricle, but also the right ventricle. Moreover, x-ray will demonstrate the marked increase in the pulmonary artery and conus. (Figure 3) The hilus shadows will be marked because of the engorgement of the pulmonary arteries. Fluoroscopy will demonstrate the so-called "hilar dance," that is, the pulsation of the pulmonary arteries.

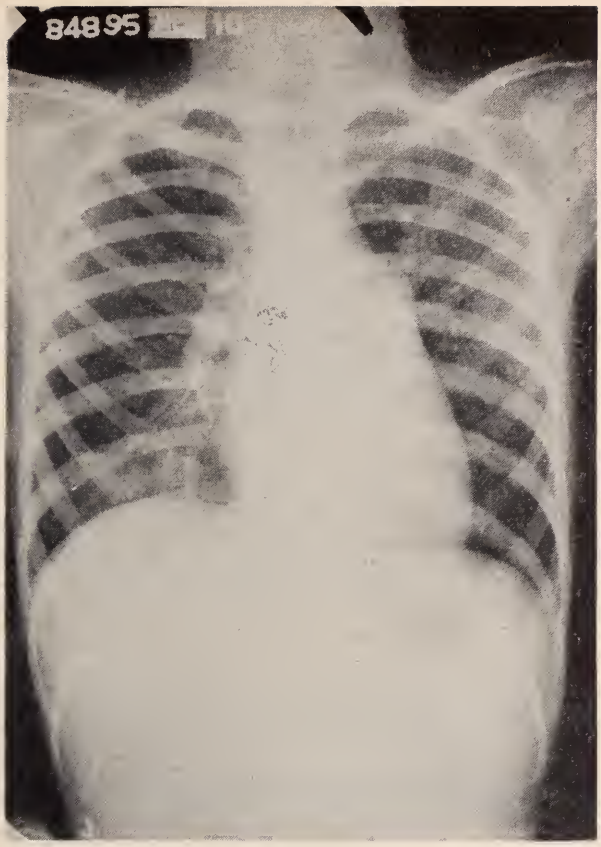


Figure 3. X-ray of patient with persistent patent ductus arteriosus showing the enlargement of the pulmonary artery and the increase in hilar shadows.

The blood pressure will show a disproportion of the systolic pressure as compared to the diastolic pressure. This may be so marked, especially after exertion, when the diastolic pressure may be extremely low, that the pulse may resemble the "Corrigan pulse" of aortic insufficiency.

The indication for operation is the disability shown by the patient. Several things must be borne in mind. It must be realized that the condition can in no way rectify itself. The heart of the patient with a patent ductus arteriosus has a burden to bear on top of what the normal heart must carry. It naturally will fatigue more easily when subjected to the additional loads that in normal living are continually being thrown on the heart. The more the activity of the child is limited, the less, of course, will be this additional cardiac burden. But it must be realized that restriction of activity is not without harm, both physically and psychologically.

Of all the congenital cardiac malformations which can be aided by surgery, the simple persistent patent ductus arteriosus is the one which can be cured. The cardiac physiology can be returned to normal as soon as the dustus is obliterated either by ligation or section. Even the cardiac hypertrophy will gradually disappear.

In deciding whether or not to advocate surgery, the risks involved in the operation itself must be weighed in the balance. It has taken a long time to overcome the prejudice against operations within the thoracic cavity. However, the time is now here when any enlightened surgeon will concede that the thorax is as amenable to surgical

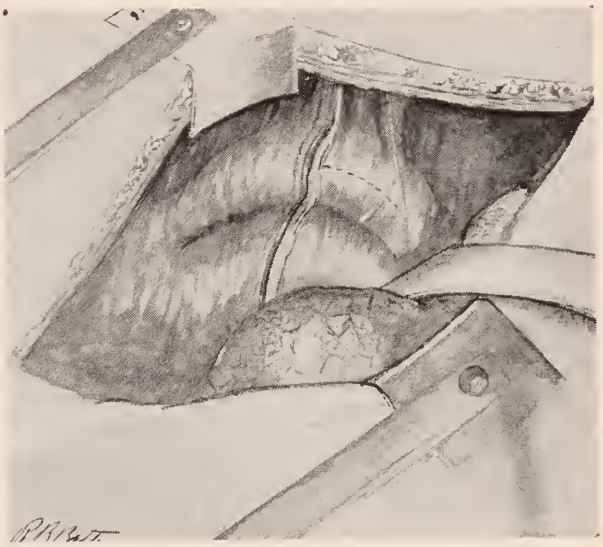


Figure 4. First step in operation. The pleura has been opened, the left lung has been retracted downwards, and the arch of the aorta and the pulmonary artery can be seen thru the mediastinal pleura. The dotted line shows site of incision into mediastinal pleura.

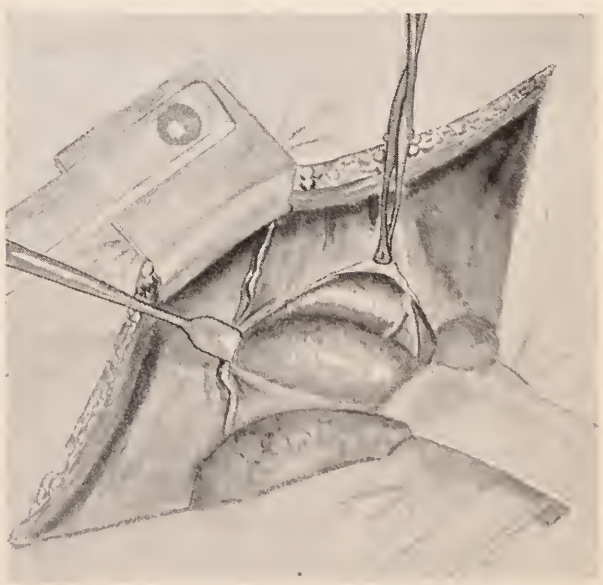


Figure 5. Second step in operation. Mediastinal pleura has been incised and site of the ductus is being cleared. Note recurrent laryngeal nerve coursing under aortic arch. The ductus will lie just anterior.

procedure as the abdomen. The operation should, of course, not be done by a tyro, nor for that matter by any surgeon who is not completely familiar with the anatomy of the region to be attacked, and furthermore, should not be done by any surgeon who has not sufficient knowledge to recognize the presence of other, unsuspected cardiac anomalies, should they be present.

In competent hands, the operation for the obliteration of an uncomplicated patent ductus arteriosus is not difficult and has a negligible mortality and post-operative morbidity.

The second harmful consequence of a persistent patent ductus arteriosus is the increased liability to the development of a sub-acute bacterial endocarditis. Why that should be we do not know. We do know that the proportional incidence of sub-acute bacterial endocarditis is many times higher in persons with a patent ductus arteriosus than in others. Thanks to Libman and Tauroff, we also know that ligation of the ductus may be followed by a dramatic cure. Within minutes after the ductus is obliterated, the blood cultures become sterile. The septic temperature abates temperature abates and the patient starts on the road to recovery.

The operation for obliteration of the ductus, in this case, may be difficult. The inflammatory reaction in the tissues around the ductus, the presence of inflammed lymph glands, and the friability of walls of the vessel, especially the posterior wall, form a hazard not present in the case of an uncomplicated ductus. However, in spite of difficulty and the danger, the risk of the operation is still much less than the risk of not operating. "The results of operation are so brilliant that a patient with a sub-acute bacterial endocarditis in whom there is any suspicion of a patent ductus should have the benefit of an exploratory operation."[1]

A word of caution is indicated. Dr. Taussig says, in her textbook, "Congenital Malformations of the Heart," "Altho in its most characteristic form a patent ductus arteriosus is relatively easy to diagnose, there are several conditions from which it must be differentiated." The chief point in the differential diagnosis will be to rule out other concurrent congenital malformations of the heart. Especially is it imperative to rule

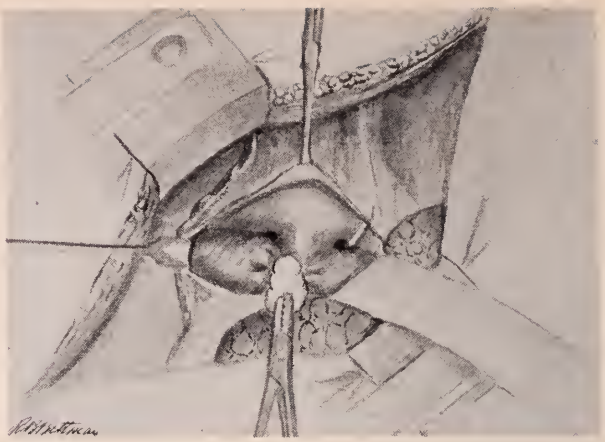


Figure 6. Third stage in operation. The pulmonary artery, which is greatly enlarged and distended, has been compressed by a cotton pledget. Note that the ductus is a broad and very short structure. The ductus is being freed. Note these pictures of operation show things as they are in the uncomplicated case, and not as they appear when a sub-acute endocarditis is present.

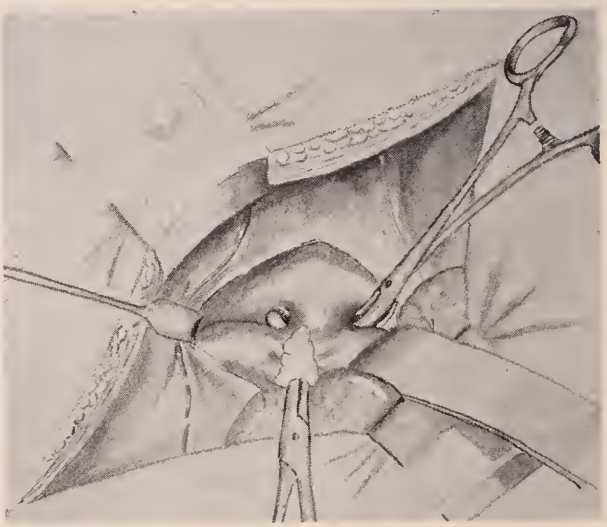


Figure 7. Fourth stage in operation. The patent ductus arteriosus has been freed and is ready for closure by ligation or division and suture.

out such conditions in which the presence of the patent ductus is necessary to life.

As in other conditions, the first and most important factor in the diagnosis of a persistent ductus arteriosus is the knowledge on the part of the family physician that such a pathological entity exists. Like many other pathological conditions, once the physician is on the alert he will be surprised to find the disease not as uncommon as he had thought it to be. The symptoms may be confused with those of other cardiac maladies, or conditions which result in general maldevelopment and easy fatigue, but the signs are startling. The palpable thrill over the card-

[1]Helen B. Taussig, *Congenital Malformations of the Heart*, p. 348.

iac area and the rumbling murmur over the second interspace are striking.

I will not devote much time to the techniques of operation, further than to explain briefly what is done.

The anaesthetic is best given by means of an intratracheal tube. The patient is placed on the right side with a sandbag under the left shoulder. The incision is made thru the left anteriolateral thoracic wall starting in the third interspace. After the chest is opened and the left lung well retracted, the arch of the aorta and the bulging pulmonary artery will be distinguished under the mediastinal pleura. The left phrenic nerve will be easily visible anterior to the ductus; the vagus nerve, if it can be seen, will be posterior to the ductus. The left subclavian artery arises from the arch of the aorta opposite the entrance of the ductus. When the mediastinal pleura is split and the arch of the aorta exposed, the recurrent laryngeal nerve will be seen passing under the arch of the aorta dorsal to the ductus. This nerve must not be injured. The exact site of the ductus is also easily located by finding that spot where the palpable thrill is completely obliterated by gentle pressure of the finger. The obliteration of this thrill is startling. If the thrill is not completely checked, it may mean that another congenital defect may be present.

The isolation of the ductus is done by blunt dissection and in the absence of infection is not difficult. Contrary to most descriptions in the literature, the patent ductus arteriosus in a patient who has marked symptoms will be a broad-short vessel; in some cases it will even appear as if the aorta and the pulmonary artery were actually approximated rather than connected by means of a duct.

The obliteration of the ductus is brought about by ligating the duct, or by actually dividing and suturing the duct.

The ligation of the duct is by far the simplest method, but in a certain small number of instances, it may be followed by a recanulization of the duct.

The chest wall is tightly closed, without drainage, after the left lung has been inflated.

The post-operative treatment is purely symptomatic, and usually uneventful. The children be up in a wheel chair the next day.

Their metamorphosis from puny, weak children unable to partake in school activities to healthy, normal individuals is, as I said in my opening statement, dramatic.

CONCLUSIONS AND SUMMARY

A persistent patent ductus arteriosus is a pathological condition which may be harmful either because of the change in the mechanics of the circulation or because of the increased tendency towards sub-acute bacterial endarteritis.

The symptoms subsequent to the altered mechanics simulate those of cardiac insufficiency or other conditions which produce fatigue or malnutrition. The signs are strikingly evident. They consist of a loud easily audible continuous murmur best heard over the second left interspace, and an easily palpable thrill over the entire precordium; these two signs along with the absence of cyanosis should make any physician suspect the presence of an aortic-pulmonary artery shunt. Ligation or suture of the patent ductus cures the condition. The operation, especially in the absence of a complicating endarteritis, is simple, and the risk involved minimal in comparison to the danger of the disease and to the excellent results obtained.

YOUR ANNUAL MEETING-SPRINGFIELD
MAY 23, 24, 25

Cystitis in the Female: Interstitial Cystitis

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The immediate past third of a century has witnessed innumerable enlightening if not definitely astounding revalations in the medical sciences. This is particularly true in the field of Urology. However, cystitis in women is apparently not much better understood today; or, if so, our knowldege is not crystallized, organized and classified in such manner as to be understood and imparted. Interstitial cystitis, as judged from reports in the literature, is not an uncommon condition; it is possibly sectional in location or even limited to certain areas in the same city or locality.

One would be justified, from the foregoing statement, in assuming that the author does not look upon the symptom-complex termed interstitial cystitis as a distinct entity, but rather as being of the opinion that sufficiently diligent and elucidating search for etiological factors was amiss. He has reached this conclusion because of several reasons. No proved cases were seen during a training period of several years in a hospital with a large urological service and as an assistant to a busy urologist. Nor have any been encountered during an active practice of a couple of decades. However, during this time a number of patients have been seen in whom such a diagnosis had been made. In fact, during several consultations the classical cystoscopic picture was reproduced. This is readily accomplished when one has a total disregard for trauma of the bladder, no longer considering it a rather delicate internal organ. Not only the blood vessels but the viscus itself may be ruptured by forced distention.

The ramifications of cystitis are so multitudinous that it is quite difficult to break the subject down into parts. But questioning the accuracy of the diagnosis, or at least anxious to learn more about interstitial cystitis, three pathologists of wide experience, Drs. Perry Melnick, James P. Simonds, and Lester King, were queried as to whether they had ever seen a case. The answer from each was in the negative.

A wide variety of etiological factors are involved in the subject of cystitis in particular and the symptom complex known as interstitial cystitis incidentally.

Certainly none of us with all our considerable present-day knowledge of this condition will be able to secure uninterrupted success in its management. The hidden, obscure and intangible factors are too numerous.

Bladder neck obstruction in the female is of rather common occurrence. The author was struck by the number of years which passed before seeing a patient requiring urologic surgery, at the same time encountering quite a number relieved by gynecologic surgery, and then within a short period of time examining several upon whom such surgery was necessary. It not infrequently happens that both urologic and gynecologic surgery must be performed upon the same patient to secure satisfactory results.

The evidence of a glandular obstruction analogous to the prostate in the male is not convincing. Much the same picture may be found in protracted chronic irritation.

While most of the relaxations and weaknesses of the pelvic outlet are traumatic in origin, one must be constantly aware of the occasional individual with constitutional weakness of these supports. In either the bladder's position is altered resulting in inadequate drainage, stasis or, at best, a congestion is present, eventually terminating in a cystitis, possibly acute but more likely attenuated with repeated exacerbations.

Caruncles are notorious for their accompanying symptoms of cystitis. It is well to be alerted for associated lesions, since there are too many caruncles which produce no symptoms to consider them the only factor involved. Frequently the

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caruncle is only the prolapsed portion of a redundant mucous membrane. On endoscopic examination the normal pink has been supplanted by a blue, cyanotic, frequently granular appearance. The possibility of malignancy must be constantly borne in mind.

The classical symptoms of interstitial cystitis are commonly manifested in several other diseases and such a diagnosis erroneously applied to them, e.g., tumors of the bladder and the permanent cicatricial changes occurring in the vesical wall following their treatment, the same sequelae following treatment for varicosities of the bladder wall and chronic cystitis of a wide etiologic variety but particularly chronic infiltrative cystitis, and in the male, the cystitis following surgery of the prostate and especially the transurethral resection of the prostate.

There are other extra-urinary causes to be considered, such as pressure from the uterus and adnexa. Adhesions of these organs may cause distorsions of the urinary bladder with urinary symptoms.

Foci of infection may result in cystitis; the route may be hematogenous, lymphogenous and by direct contiguity of tissue. Infections in the cervix appear to play a role. It seems that constipation if not actually an etiologic factor, at least helps maintain an inflammation in the bladder. It is rather surprising the number of bladder symptoms in intestinal diverticulosis, even though the symptoms of the primary condition may be practically nil, and in the absence of a fistulous opening into the bladder.

Gynecologic operations appear to be a source of bladder complaints. Interference with the normal blood and nerve supply is considered the factor at fault.

Strictures of the female urethra give rise to symptoms of cystitis. In this category I like to include those cases, as in the male, that have no definite obstruction to the passage of a sound or diagnostic bougie but do have sufficient scarring over a wide area to produce a variety of annoying urinary symptoms. Why some patients have symptoms out of all proportion to the pathology present may possibly be accounted for by the interference with the normal innervation and nutrition. At best, urethral pathology is difficult to determine and may be easily overlooked even when being searched for diligently.

Diseases of the upper urinary tract, kidneys and ureters, are a very common source of bladder symptoms. It is of paramount importance to know and to remember that infection of these structures is not necessary in order to cause most annoying symptoms of frequency, dysuria and even pain in the bladder region, e.g. hydronephrosis and calculus disease, and, of course, this the rule rather than the exception, in fact almost the invariable rule when infection is present. There are several things which are most important in this connection. The upper urinary tract may be involved and show little or no x-ray or other evidence of organic change. The laboratory usually furnishes invaluable help but sometimes next to none and one must depend upon one's own clinical judgment entirely. In the same individual there may be pus or red cells on one examination and absent on another. The same may be said about the bacteria. The cultures and smears may be positive or negative. The culture may be one and the smear the reverse. These may change and vary .There may be a high fever with few findings but relieved by treatment or surgery.

A rather remarkable thing about the vast majority of cases that present diagnostic and management difficulties is the age of the patient. The majority are either threatened with the menopause, are experiencing it or have passed it. This is so common that it cannot be considered wholly coincidental. When we see the senile changes in the tissues one must conclude that hormonal changes are a factor in causation.

Avitaminosis and the habits of the individual are important factors. Occasionally one cures a patient of day and night frequency by withholding coffee or other diuretics.

Some of these patients' complaints appear to be histamine reactions which are relieved by the anti-histamine drugs. But particularly in this class there may be two or three factors involved. We have had under observation, together with several other specialists, an elderly woman of 70 years who complains of the classical symptoms of interstitial cystitis, associated with pruritus vulvae with the vulva and adjacent parts red, angry and swollen. She also suffered from moderately severe acne rosacea. Her symptoms are relieved or kept under control by administration of estrogens, thiamine and an anti-histamine preparation.

Psychogenic causes may be encountered and are commonly overlooked or misinterpreted. The surgeon must needs be constantly on guard. The symptoms these individuals present are certainly numerous and bizarre.

Those patients who show obvious infection should receive the necessary urinary antiseptic or antibiotic. The sulfonamides still have a definite place in treatment. The importance of mandelic acid has lessened with the discovery of more recent remedies, but on occasions the combination mandelamine is serviceable when others are disappointing. The same may be said, on rare occasions, for methenamine. The results from penicillin and streptomycin therapy have been startling in those types of organisms suited to their use. The newer antibiotics, aureo-mycin and chloromycetin, appear to be of considerable value in certain types of urinary infections.

The extremes of the pH range are antiseptic but difficult to reach and difficult to maintain. Both strongly acid and strongly alkaline urine are either bacteriocidal or bacteriostatic.

The treatment of these people depends for its success upon a thorough appraisal and adequate comprehension of the cause or causes involved. The silver nitrate treatment in increasing strengths popularized several years ago has not proved to be particularly effective. The possibilities here are so great that their management is interesting to say the least.

55 East Washington Street

Cutaneous Biopsy:
A Safe and Valuable Diagnostic Procedure

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Chicago

Biopsy (Bios-life — opsis-vision), the removal of tissue from a living person for microscopic examination, dates back to the middle of the the nineteenth century when a number of pathologists both in the United States and in Europe began to recognize the diagnostic value of properly performed biopsies. Virchow laid the rational foundation of the procedure in 1854 when he demonstrated microscopically that excision was the proper treatment of malignancies because of the possibility of their complete eradication in the early stage of the disease.

Bloodgood, Ewing, McCarthy and Wood were all instrumental during this century in bringing about the recognition of biopsies as a valuable diagnostic procedure.[1]

The histologic study of skin is of value not only in the diagnosis, but also in the prognosis and treatment of many disease.[2] The accessibility of the skin makes a cutaneous biopsy a safe and relatively simple procedure. However, we agree with H. Montgomery[3], who states that "Like any other single diagnostic procedure, it is far from infallible."

To illustrate the value of cutaneous biopsy as a valuable diagnostic procedure, we present a review of 117 selected cases studied both clinically and microscopically in the Department of Dermatology, Northwestern University Medical School during 1948. All microscopic diagnoses were made by a dermatologist well trained in dermatohistopathology.

According to H. Montgomery[3] the indications for biopsy are as follows:

1—If there is any doubt regarding the clinical diagnosis of a cutaneous neoplasm and certainly it is essential if a malignant epithelial neoplasm has recurred after treatment. For example, one cannot always distinguish clinically between a basal and a squamous cell epithelioma.

From the Department of Dermatology, Northwestern University Medical School, Dr. Edward A. Oliver, Chairmon.

2—To establish a correct diagnosis in the precancerous group of dermatoses.

3—To distinguish between the various types of pathological pigmentations of the skin.

4—In the diagnosis, prognosis and treatment of various forms of cutaneous tuberculids.

5—In investigative studies of various dermatoses.

6—To corroborate the clinical diagnosis of certain inflammatory diseases of unknown cause.

The chief objections to biopsies have been:

1—Incision of a malignant tumor stimulates local growth.

2—Incision disseminates tumor cells. Montgomery[3] and others believe that there is no danger in removal of a specimen for biopsy from a cutaneous neoplasm except in cases of melanoepithelioma or of Paget's disease of the nipple associated with underlying adenocarcinoma of the breast, in which cases the lesions should be radically excised.

Selecting both a proper site and lesions which appears to have the characteristics of the suspected condition are very important. A portion of normal skin adjacent to the lesion should when indicated be included for comparison.

The biopsies reported in this series have been taken both in private offices and in the dermatology clinic. It has proved to be a safe procedure even with routine office technic where strict asepsis cannot always be maintained. The cosmetic result, especially in lesions involving the face, is always taken into consideration but not at the cost of a correct diagnosis. If a cutaneous punch not larger than four mm. be used, sutures need not be taken and healing results with little if any scarring. Larger punches may require suturing and the resulting scar is more evident. Because of the round shape of the wound of a punch biopsy, puckering of the corners may result when sutures are used. An elliptical incision along the lines of cleavage deep enough to include some of the subcutaneous tissue or wide enough to include the specimen in toto allows a larger specimen to be taken and yet may give a better cosmetic result if the sutures (fine black silk or dermal) used to approximate the edges are not permitted to remain in the skin too long. When sutures are not used, as with the smaller cutaneous punches, bleeding may be stopped readily by a pressure bandage applied for about 15 minutes.

TABLE 1

Comparison between Clinical and Microscopic Diagnoses

CLINICAL DIAGNOSIS		MICROSCOPIC DIAGNOSIS		
		Malignant	Precancerous	Benign
Malignant	95	79	8	8
Precancerous	13	10	3	
Benign	9	9		

REVIEW OF CASES

One hundred seventeen selected cases studied both clinically and microscopically are reviewed. Of one hundred and eight cases clinically diagnosed as cancerous or precancerous, the histologic and clinical diagnoses were in agreement in eighty-two of the cases.

In thiry-five cases the clinical and histologic diagnoses were in disagreement.

Eight of the cases clinically considered malignant were found to be precancerous on section. Ten cases clinically precancerous were histologically malignant. Eight cases clinically malignant proved to be histologically benign. Nine cases called benign clinically proved to be malignant. Thus in this series of cases, the clinical and microscopic diagnoses differed in approximately thirty per cent of the cases. In the table below is given a comparison between the clinical and microscopic diagnoses. To be brief, a further breakdown in classification of the malignant, precancerous and benign lesions has been purposely omitted.

SUMMARY

Cutaneous biopsy is a valuable and safe diagnostic procedure and should be employed more frequently.

If one completely destroys the lesion without performing a biopsy one also destroys the evidence. This evidence may prove important on a patient's record.

One hundred and seventeen selected cases studied both clinically and microscopically are presented. The correlation between the clinical and microscopic diagnoses is reported.

Hence it is seen that even adequately trained clinicians with many years' experience may frequently err in the diagnosis of skin malignances. If there is any doubt regarding the clinical diagnosis of a cutaneous neoplasm, biopsy is definitely indicated.

CONCLUSIONS

1—A cutaneous biopsy is a safe minor surgical procedure which may be done in the office.

2—A cutaneous biopsy is a "must" in the diagnosis of many neoplastic growths.

3—A cutaneous biopsy is an aid in the differential diagnosis of a large number of non-malignant dermatoses.

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Abstract of Mucoceles

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On the basis of four cases seen in the clinics of the Illinois Eye and Ear Infirmary during the past nine months in which a diagnosis of mucocele was made this occasion is taken to briefly review this subject. From a careful study of the pathological material obtained from these cases we should like to present what we believe is a more understandable concept of mucocele formation.

The first case was that of a 66 year old white male who gave a history of a painless swelling over the left eye of four years duration. There was a marked downward and outward displacement of the left eye with vision of 20/200. A diagnosis of mucocele was made and confirmed by aspiration and x-rays. An external frontal operation was performed and the patient's post-operative course was uneventful.

The second case was that of 25 year old negro male who had noticed a drooping of the left eyelid and eye during the past year. There was a history obtained of repeated trauma to the left side of the head. A downward and outward displacement of the left eye was noted. A diagnosis of mucocele was made and confirmed by x-ray findings. An external frontal operation was performed and the patient's recovery was uneventful.

The third case is presented to bring out the difficulties of diagnosis of mucoceles. A 43 year old negress with all the classical findings of mucoceles, clinical and roentgenological, was operated through the external frontal approach but instead of a mucocele, a carcinoma was encountered. A radical exenteration of the left orbit was necessitated.

The fourth case was that of a 51 year old white male with complaints of pain over the right frontal and maxillary sinuses. X-rays of sinuses revealed a large rounded mass within the right antrum with slight haziness of the right frontal sinus. A roentgen diagnosis of mucocele of the right antrum and a mild right frontal sinusitis was made. Lipiodol studies of the right antrum confirmed the diagnosis of mucocele. A Caldwell-Luc operation was performed on the right antrum and the mucocele was removed. The patient's post-operative course was uneventful.

The diagnosis is based on a history of a painless progressive displacement of the eye in a downward and outward direction, diminished vision or diplopia, and trauma to the head in the past. The diagnosis is greatly facilitated by aspiration and x-ray.

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Presented before the 108th annual meeting, Illinois State Medical Society, Section on Eye, Ear, Nose and Throat, May 10-12, 1948.

The only adequate therapeusis seems to us to be a radical exenteration through an external incision. In cases of mucoceles of the frontal sinus an external frontal operation is recommended, while in cases of mucoceles of the maxillary sinus a Caldwell-Luc operation seems to be the one of choice.

It is generally held at this time that a mucocele is a cystic accumulation of fluid which undergoes active enlargement within a sinus causing atrophy of the surrounding bony structure. It is stated that this cystic accumulation may arise from a cyst formation in the lining membrane of the sinus or to the blocking of the sinus ostium as a result of trauma or infection.

However from the pathology found in our series it would seem that the mechanism of mucocele formation is initiated by: 1) a submucosal injury, either traumatic, hemorrhagic, or infectious, which causes an (2) elevation of the mucosa with an accumulation of exudate beneath it; and that (3) a herniation of this elevated mucosa occurs until it encounters the resistance of normal sinus mucosa of one of the sinus walls where (4) pressure is exerted upon the mucosa and the underlying bone.

The histo-pathology upon which this concept is based may be considered under (1) contents; (2) mucosal changes; and (3) bone changes.

The contents of the mucoceles are chiefly old blood elements, accumulations of red blood cells, and fibrous elements.

The etxernal mucosal changes consist primarily in a modification of the normal sinus mucosa. The normal cilia are absent and the columnar cells become cuboidal in type as a result of the pressure exerted by the developing mucocele. The inner wall of the mucocele is considerably thicker at the base where the initial injury occurred. It is composed of fibrous tissue and endothelial cells.

The changes of the adjacent bone are those characteristic of bones influenced by constant pressure and tension. In the beginning of the process, the pressure stimulates bone apposition and leads later, with an increase of pressure, to bone resorption which prevails above the first changes, giving the bone a thin parchment like appearance.

RECOMMENDS INSECT REPELLENTS TO VACATIONISTS IN TROPICS

Vacationists in tropical or subtropical areas would do well to have protective inoculations and learn about insect repellents, advises a Cincinnati dermatologist.

Several effective repellents have been developed in recent years, Dr. Leon Goldman of the University of Cincinnati College of Medicine points out.

During World War II, thousands of compounds were tested for their repellent and toxic qualities against mosquitoes, lice, mites, ticks and other such pests, he writes in the November issue of Archives of Dermatology and Syphilology.

"For insects which carry disease, such as ticks, mosquitoes and some flies, the repellents have an importance far beyond the prevention of the initial bite," Dr. Goldman says.

Duration of activity varies with the type of repellent, according to Dr. Goldman. A mosquito and tick repellent known as NMR1-448 is effective for about eight hours against mosquitoes and is said to be effective as long as 12 days against ticks. Clothing impregnation prolongs the period of activity.

As a repellent for chiggers, Dr. Goldman recommends benzyl or benzoate preparations which are used on the feet and legs. In general, a cream type of repellent is preferable to a liquid type, he says.

Mixtures of repellents developed by the armed services during World War II underwent controlled tests in regard to possible poisoning and irritation of the skin, he adds. As a result of such work, repellents available now are not likely to irritate the skin.

CASE REPORTS



Chronic Severe Ventricular Aneurysm

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A single, 49-year-old, white American female developed a sudden feeling of tightness in the chest that lasted 2 to 4 hours, and then subsided. A week later in the early afternoon while working as a file clerk she was suddenly siezed with a mild pain in the chest that gradually, over a period of 2 to 4 hours, became very severe, and radiated to both shoulders and arms. With the onset of the pain she became short of breath, and developed a profuse, cool perspiration; then, later, as the pain became more severe, the shortness of breath was more pronounced, and accompanied by nausea and vomiting of a moderate amount of a greenish-yellow mucoid material. She was brought to the hospital by ambulance, and given Pantapon gr. 1/3 for pain, Coramine 2 cc. IM, and placed under an oxygen tent in a sitting position.

Past History:—Patient was addicted to morphine, barbiturates and paragoric for the past ten years, had a shame, fear, frustration complex, and spent four months during 1947, undergoing shock treatment at a sanitarium for this condition. Patient stated that three years ago she had had a "mild stroke" without any residual effects, and further stated that she usually had low blood pressure. In December, 1945, she had a severe attack of chest pain accompanied with vomiting that lasted for two hours and then subsided to a dull constant ache that gradually left her after one month's rest. She did not consult a physician for this latter condition. Underwent an appendectomy and cholescystectomy in 1942 at the same time with an uneventful recovery. Pulmonary Tuberculosis in 1931, 1932. Menstrual history was essentially negative, and menopause took place six months ago.

Physical Examination:—A complete physical examination by systems was done, and was essentially negative except for the following: A well-nourished, well-developed, white female appearing about 45 years of age, mildly dyspneic, exhibiting slight cyanosis about the lips, appearing somewhat anxious, and perspiring quite freely with a temperature of 99.6 (rectal), respirations 24, pulse not palpable, blood pressure not

From the Jackson Park Hospital, Chicago.

obtainable by auscultation or palpation, heart tones distant, regular rhythm, and a mild, coarse, systolic murmur heard over the apex. Heart rate of 80 per minute.

Admitting Diagnosis:—Acute coronary occlusion.

Course of Disease:—About three hours after admission to the hospital, the patient's symptoms of pain, cyanosis, dyspnea and anxiety subsided, and she felt fairly comfortable though she was still orthopneic, and remained in a sitting position under the oxygen tent. The pulse of 84 per minute was very thready — weak, but regular, and the blood pressure was still unobtainable by auscultutory methods. The patient was given a sedative, and slept well for the rest of the night.

The following morning her temperature had risen to 100°R, and pulse rose to a regular, stronger 104 per minute with respirations at 24 per minute. She was comfortable; her Leucocyte count was 23,900 per cmm, and a nearly normal urine. BP was obtainable by auscultation, and read 100 systolic, 82 diastolic. An EKG was recorded and, concluded as "diagnostic of recent, acute, anterior, myocardial infarct. Sinus tachycardia, rate 125."

Throughout the hospitalization period EKG tracings were made. The conclusion interpreted from the early records was that of an acute anterior infarct, but as later tracings were taken the conclusions tended toward right heart damage and instability. The last recordings revealed very little other than premature auricular and ventriclar systoles.

On the third day following admission the patient's temperature was 103 R, pulse 120, respirations 25, BP was 86 systolic and 58 diastolic. The patient was comfortable, and had no complaints. The patient was being maintained on Pantapon gr. 1/3 PRN for pain and drug addiction for it was decided that any attempt at therapy for this latter condition could wait until a later date. Coramine 2 cc IM b.i.d. was also prescribed. The patient remained out of the oxygen tent for 2 to 3 hour periods, or as long as she showed no signs of respiratory embarrassment.

On the fifth hospital day her temperature had risen to 104.2 R, pulse 126, respiration 26, and penicillin IM was started more as a preventative



Figure 1. 1. Left Ventricular aneurysm and healed myocardial infarct. 2. Enlarged aortic valvular ring. 3. Marked thinning of myocardial wall.

of pulmonary complications than as therapy, for no physical findings of a lobar or bronchial infection were present. N.P.N. 32.5 mg. and sedimentation rate 34.

The temperature dropped slowly and erratically, reaching a normal level on the 24th day after admission, and remained within normal limits thereafter. The pulse did not follow the temperature changes, but varied between 140 per minute and 58 per minute — always weak, and most of the time regular regardless of its variance in range, until within a few days of expiration of patient, when it remained irregular. Respiratory rate varied between 12 per minute and 44 per minute, and did not follow the temperature or pulse curve very closely. At times it was increased because of anxiety for narcotics on the part of the patient. However, the rate remained quite constant for the last three weeks of hospitalization.

On the twelfth day following admission, patient began to show signs of edema about the ankles. This condition gradually increased in severity, and by the nineteenth day had involved the legs and hips, and there remained static in spite of drugs, and restriction of fluid intake. The patient was given mercurial diuretics, digitalis, cathartics, without effect, and her condition slowly became more grave, although there was no marked or dramatic change in the course of the condition. On the 65th day of hospitalization the patient expired, and post mortem was performed.

LABORATORY FINDINGS:

Blood

Date	10-31	11-11	11-19	12-6	12-16	1-3
Hemoglobin Haden Hausser	87%	84%	60%	84%	60%	63%
Erythrocytes per c. mm.	4,650,000	4,400,000	3,280,000	4,570,000	3,400,000	3,240,000
Leukocytes per c.mm.	23,900	20,200	17,700	14,400	10,100	10,900
Neutrophiles:						
Segmented	43%	75%	78%	73%	61%	69%
Bands	7%	5%	2%	3%	10%	6%
Lymphocytes	48%	18%	18%	21%	28%	24%
Monocytes	2%	2%	2%	3%	1%	

Urine

Date	10-31	11-11	11-20	12-3	12-6	12-31	1-3
How obtained	voided	voided	voided	voided	voided	voided	voided
Amount, single	X	X	X	X	X	X	X
Color	straw	straw	straw	straw	straw	straw	straw
Appearance	cloudy	cloudy	cloudy	clear	cloudy	clear	clear
Reaction	acid	acid	acid	acid	acid	acid	acid
Specific gravity	1.032	1.008	1.011	1.009	1.010	1.013	1.014
Albumin	trace	neg.	trace	trace	trace	plus 1	plus 1
Sugar	neg.	neg.	neg.	neg.	neg.	neg.	neg.
Casts	none	none	none	none	none	occas.	none
Pus cells/H.P.F.	8-10	1-3	16-18	2-3	12-15	8-10	6-8
Blood cells	rare	none	none	none	none	2-4	none
Epithelial cells	many	few	few	none	few	none	many

Autopsy:

Anatomical Diagnosis:—1. Massive healed myocardial infarct with aneurysm of the left ventricle.

2. Coronary occlusion.

3. Generalized arteriosclerosis.

Thoracic Cavity and Organs:—The left pleural cavity contains about 500 cc of blood-tinged liquid. The right pleural cavity contains many fibrous adhesions and about 200 cc of liquid. The pericardium is partially closed over the left ventricle by fibrous adhesions. The left ventricle is partially ballooned into the epicardium. The right heart is examined insitu, and no emboli are found. The heart weighs 370 grams. The epicardium over the anterior left ventricle is roughened. The myocardium of the right ventricle is red and 3 mm. in thickness. The right ventricle shows thickening of the muscle fibers. The left ventricle shows marked thinning over most of the entire ventricular wall, and is reduced to 2 mm. in some portions. The area involved here measures 10 x 6 cm. There is a clot over another portion of the left ventricular wall measuring 5.5 cm. in diameter. The left myocardium is of the expected thickness only near the mitral and aortic rings. The endocardium is markedly thickened over large portions of the left ventricle. The valves measure as follows in circumference: aortic-6 cm., mitral -11.5 cm., tricuspid-11 cm., and pulmonic-6.5 cm. The mitral valve shows atheromatous plaques. The aortic valve also shows these plaques. The coronary arteries show partially occluded lumens. The left descending coronary artery is completely occluded by atherosclerosis.

The aorta shows moderate atherosclerosis.

Microscopic Diagnosis:—Several sections of myocardium are examined. One through the intramural clot in the left ventricle shows layers of fibrin and amorphous material covering a thin band of muscle which shows coagulation necrosis. There is a small amount of viable fibrous and adipose tissue outside of the muscle. Other portions of the left ventricle reveal a markedly thickened fibrous endothelium with only occasional strands of muscle in the wall. There are areas of necrosis in the wall. There is round cell infiltration in the epicardium.

The sections of the left ventricle wall consist of an inner layer of fibrous tissue resembling a thickened aortic intima, outside of this is a thin layer of necrotic tissue to the distal side of which is a thin layer of fibrous tissue. This is followed by a narrow layer of cardiac muscle cells having large dark staining nuclei. Outside of this is a wide layer of epicardial fatty tissue with considerable perivascular inflammatory cell reaction.

Electrocardiograph Record
Conclusions

Date: 11-1-48. Conclusions: Diagnostic of recent acute anterior myocardial infarction. Sinus tachycardia.

Date: 11-8-48. Conclusions: T_6 flat; ST_5 more elevated; ST_6 no longer elevated; ST_4 less elevated; T_1 less tall. Unstable acute anterior infarction curve. Sinus tachycardia — 108.

Date: 11-22-48. Conclusions: Comparison with tracing of 11-8-48 reveals: Limb leads are practically identical. ST_4 is now horizontal and less elevated. ST_5 less elevated; T_5 small and inverted; Lead 6 unchanged.

The serial tracings do not show the expected evolution of an acute anterior wall infarct. This may be a state of chronic coronary insufficiency.

Recommend repeat tracing in a week.

Date: 11-27-48. Conclusions: T_5 very slightly deeper. There are no other serial changes. The right heart strain persists. Marked myocardial damage.

Date: 12-6-48. Conclusions: The only changes noted is in T_5 which is no longer inverted. ST_5 is still elevated. The marked right heart strain pattern is still evident. There is a sinus rhythm (tachycardia) rate 110. Marked myocardial damage.

Date: 12-22-28. Conclusions: Comparison with the trace of 12-6-48 reveals the following serial changes: Numerous premature auricular and ventricular systoles are now present indicating marked increase in myocardial instability. The rate averages 110.

Date: 1-3-49. Conclusions: The number of premature ventricular systoles is markedly reduced indicating less myocardial irritability. A few are still present. There are no other serial changes. Sinus tachycardia — rate 125.

SUMMARY

A 49-year-old woman was admitted to the hospital with a diagnosis of acute coronary thrombosis. Throughout course of the disease no symptoms, physical findings, or laboratory procedures disclosed any evidence that was not compatable with the original diagnosis. The patient expired on the 65th hospital day, and an autopsy disclosed a severe, chronic aneurysm of the left ventricle with marked dilitation of the aortic valvular ring underlying a recent total occlusion of the left anterior coronary artery.

CONCLUSION

Report of chronic, severe, left ventricular aneurysm underling a case of fatal, acute, anterior coronary occlusion.

NAME OF HYGEIA, HEALTH MAGAZINE, CHANGED TO TODAY'S HEALTH

A change in name to *Today's Health*, effective with the March 1950 issue, was announced in the January *Hygeia*, health magazine of the American Medical Association.

The masthead of the January number also carried for the first time the name of Dr. W. W. Bauer, Chicago, as editor, succeeding Dr. Morris Fishbein, Chicago. Dr. William Bolton, Chicago, is the new associate editor, succeeding Dr. Bauer. Ellwood Douglass will continue as managing editor.

Hygeia was established by the American Medical Association in 1923. Written for the layman, it has come to be one of the most widely quoted health education periodicals in the United States. There will be no change in fundamental policy under the new editorship or new name.

Dermatomyositis

Bernard Shulman, M.D., Oak Park, and
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Chicago

Dermatomyositis is a rare disease of unknown etiology. The tissues most involved are the striated muscles and secondarily, the skin. The disease may be acute or chronic. The overall mortality is about 50%. Many of the cases which do not die of the disease or its complications are crippled because of the extensive damage to the muscles. At present there is no proved effective treatment.

The patient, a 27-year-old white male of Greek extraction, was admitted to the hospital with the following history: He had been working for two and a half years as a die-setter; was married, and had two children. He had been in good health until six weeks before his admission to the hospital when he first noticed a progressive weakness in his arms. The weakness manifested itself particularly when he performed familiar tasks such as combing his hair or tying his shoelaces. Two weeks before admission his eyes and nose became swollen. A rash appeared on his eyelids, nose, cheeks, forehead, chest and hands. At the same time, he noticed an intolerance for solid foods, which seemed to go down to a point midway in his throat and then come up again. He took liquids well. Burning of the tongue and soreness in his throat appeared simultaneously. He lost fifteen pounds in six weeks, which he attributed to his inability to eat. He was seen by a physician a week before entry who gave him "pills" and injections of penicillin. He became suddenly worse with increasing muscular weakness and dysphagia, and was brought to the hospital.

The only significant finding in the history was a severe sunburn four months earlier.

Physical examination revealed a robust young white male lying quietly in bed. The temperature was slightly elevated, pulse 120 and bounding, and respirations 24. The patient was prostrate with marked weakness of the muscles of the neck, shoulders, and upper arms. He was most comfortable when lying flat on his back. There was an erythema with a crusted surface on the eyelids and on each side of the nose, giving a butterfly appearance. The face, especially the eyelids, was edematous. On the forehead just below the hairline, a similar patch of dry sharply demarcated dermatitis was present. There was a cheilitis at both corners of the mouth. The ears and lips were of a deep red color. The eruption also involved the dorsa of the hands. Deep erythematous macules and papules with scales were present over the knuckles and at the bases of the fingernails.

The pupils were normal. The nasal mucosa showed a few blebs. The teeth were in fair condition. There were some sordes on the gums. The sides of the tongue were slightly reddened. The neck appeared swollen and was tender on palpation along the sternocleidomastoids which were flabbly and soft. Glands were felt in the neck. The lungs were clear; the heart normal in size and shape, without murmurs or irregularities. The blood pressure was 134 systolic over 80 diastolic. The abdomen, back and perineum were normal. Rectal examination was negative. The superficial reflexes were absent, and the deep reflexes could be weakly elicited with reinforcement.

On admission, the urine was clear, amber colored; with a pH of 6.5, specific gravity of 1.020, one hyaline cast, much mucus and urates. The hemoglobin was 81%, 4,370,000 red blood cells and 8,100 white blood cells per cu. mm., with 69 polys, 5 stabs, 22 lymphocytes, 3 monocytes and one eosinophil. The NPN was 34 mg. per 100 cc.

A diagnosis of acute disseminated lupus erythematosus was made.

Clinical course was rapidly downhill. The patient's muscular weakness became progressively worse and eventually involved all the muscles of his body. Marked edema developed in his face, neck, chest, arms and thighs; giving him a very husky appearance. The muscles continued to lose tone, and the patient had to concentrate all his efforts for even the slightest movement.

There was moderate muscular tenderness. There were no sensory disturbances. The dysphagia became worse so that eventually he was unable to swallow even liquids, because of regurgitation through his nose and resulting aspiration. He could speak only in a whisper and with great effort. He complained much of mucus running down the back of his throat. The pharynx became very edematous, the uvula markedly swollen. The dermatitis assumed a lighter color and a more chronic appearance. A blowing systolic murmur could now be heard over the whole precordium. The lungs became full of loud rhonchi. The whole chest reverberated to a forceful cardiac impulse. The respirations became rapid and shallow, the pulse faster. Blood pressure dropped to 118 systolic over 60 diastolic. His temperature, which at first varied from normal to 101°F, spiked to 103°F.

The urine became turbid and contained albumin (2 plus), much mucus, a few white blood cells and hyaline and granular casts. Shortly before death, the urine was loaded with bacteria and small round hyaline casts. The leucocyte count rose to 10,000 and then 12,500. There was no appreciable change in the differential count. Blood culture was negative. Serum calcium and phosphorus were 10.2 mg per 100 cc. and 4.2 mg. per 100 cc., respectively. Urine creatine was 58 mg. per 100 cc. on one determination. A urine culture taken a few days before death showed a non-hemolytic staphylococcus. At this time the hemoglobin was 64% and the red blood count 3,320,000. An x-ray of the chest, taken shortly after admission, was normal. EKG showed low voltage and tachycardia.

Dermatologic consultants suggested a dermatomyositis.

The patient began having considerable trouble in clearing his throat, bringing up quantities of frankly purulent material. He gradually became more dyspneic. Much mucus was evacuated from his throat in an attempt to relieve the condition. The pharynx and uvula were so swollen as to allow almost no passage for air. Eventually, the patient became cyanotic and, despite aspiration of the trachea, morphine, atropine, and oxygen under positive pressure; became apneic and died suddenly on the sixteenth day of hospitalization. Muscle biopsy was advised but not obtained.

Treatment: Because of his inability to swallow, the patient was maintained by parenteral nutrients. Sedatives were given for sleep and rest. He was put on penicillin, 50,000 units every three hours, shortly after admission. Ephedrine sulfate was used locally from time to time in an attempt to shrink the redundant naso- and oropharyngeal mucosa. He was given a trial of intramuscular prostigmine methyl sulfate without benefit. Several injections of testosterone propionate were given without noticeable effect.

Post-Mortem Examination:—The body was that of a well-developed white man of about twenty-seven years of age. The conjunctival and oral mucosa were pale. The skin around the mouth was fissured. The neck was swollen, but no glands were felt. The arms showed a marked non-pitting edema. The abdomen was flat, with an old McBurney scar. The skin lesions appeared faded.

The liver was at the xyphoid and at the 8th rib in the midaxillary line. The lower pole of the spleen was at the 10th rib in the midaxillary line. The diaphragm was at the 3rd intercostal space on the right, 4th intercostal space on the left. The peritoneum was normal.

The left pleural cavity contained 100 cc. of a clear amber fluid; the right side about 200 cc. The pleura and the pericardial sac were normal. The heart weighed 310 Gms. The myocardium was red-brown and flabby, with L.V.-15 mm. and R.V.-only 2 mm. All valve leaflets were normal. The intima of the aorta was smooth.

The upper lobe of the left lung was subcrepitant with a frothy, bloody fluid in the air passages. The lower lobe of the left lung was dark red and full of blood, as was the lower lobe and whole posterior half of the right lung. The bronchi were diffusely dilated with an injected mucosa and lumina full of thick creamy pus. The hilar lymph nodes were enlarged, firm and anthracotic.

The spleen weighed 360 Gms., was moderately enlarged with a firm thick capsule. On section, it was dark purple-red with enlarged and prominent follicles. The liver weighed 2100 Gms. and was firm with a thin smooth capsule. On section, the markings were moderately distinct and the color tan-brown. The gall-bladder was distended with thick dark bile.

The weight of both kidneys was 460 Gms. They were firm; the capsules stripped with ease. The surfaces were smooth and of a pink-purple color. The pelves and ureters were normal. The urinary bladder was slightly dilated with mucosal injection in the area of the trigone.

The jejunum was normal. The Peyer's patches in the ileum were hyperplastic. The mucosa of the cecum and ascending colon contained many single lymph follicles, while a few areas in the ascending colon and terminal ileum had pinpoint ulcerations.

All the other internal organs were within normal limits.

The skeletal muscles were uniformly soft and edematous. Areas of pallor from 1-5 cm. in diameter were distributed diffusely throughout the muscles. The subcutaneous tissues showed marked edema.

Microscopic examination of the skeletal muscle revealed edema, loss of striations, hyaline degeneration and fragmentation of the muscle fibers. In some places there was complete destruction and replacement with fibrous tissue. A small amount of perivascular round cell infiltration was present.

Section of the heart showed edema of interstitial tissue with some fibrosis, degeneration and fragmentation of the muscle. Sections of the liver and kidney showed cloudy swelling and passive congestion. Section of a peribronchial lymph node revealed only small amounts of anthracotic pigmentation, hyperemia and a marked non-specific hyperplasia.

Section of the skin showed a marked edema of the dermis and subcutaneous tissue with slight perivascular infiltration of mononuclear cells.

COMMENT

Dermatomyositis was described by Steiner[1] as "an acute, subacute or chronic disease of unknown origin; characterized by gradual onset with vague and indefinite prodromata, followed by edema, dermatitis and multiple muscle inflammation". Several reviews of the literature have appeared since Steiner[2]. In 1938, Schuermann[3] claimed to have found 263 cases. We have found reported cases since that time, not all of which were proved cases or satisfied the diagnostic criteria of most authorities[4].

The etiology of the disease has at various times been thought to be bacterial, viral, toxic, hormonal, hyperergic or a combination of two or more of these factors. At times its close similarity to scleroderma[5] or to disseminated lupus erythematosus[6] may classify it among the collagenoses, although the collagenous tissue in dermatomyositis does not undergo such extensive changes as it does in the other diseases[7]. The disease, has in several instances, been noted in connection with preceding infections[8] and carcinoma[9]. Sensitivity to sunlight has been reported on several occasions[10] and may have been a factor in our case.

It is possible that dermatomyositis is a somatic response to one or more of a number of possible provoking factors. Transitional cases resembling lupus erythematosus and scleroderma have been reported in which even biopsy was confusing[11]. There is much disagreement concerning the pathologic picture of the disease. Many muscle specimens have shown only non-specific inflammatory or degenerative changes[12]. These resemble changes found in several other myopathies such as severe scleroderma, myasthenia gravis, thyrotoxicosis, etc.[13]. Others feel that dermatomyositis has a typical lesion[14] consisting of an interstitial infiltration of lymphocytes and monocytes, probably followed in time by parenchymatous muscle changes of a non-specific type due to a toxin, anoxia or both. The name "edematous polymyositis" is preferred by the French investigators[15], since they feel that the skin manifestations are secondary. Mills[16] considers the skin lesion to be a "toxic dermatitis". He reported a case in which biopsy preceded autopsy by two weeks. The biopsy showed chiefly an interstitial inflammatory reaction with little degeneration, while autopsy revealed marked parenchymatous degeneration with only moderate infiltration. O'Leary[17] also considers the skin lesions secondary. Wainger and Lever[18] believe that degeneration of muscle and collagen is the basic morphologic alteration in this disease.

Histologic examination is necessary to distinguish between dermatomyositis and trichiniasis, scleroderma, lupus erythematosus and periarteritis nodosa. Conditions which enter the differential diagnosis but can be differentiated clinically are giant urticaria, serum sickness, scleredema adultorum, myasthenia gravis, rheumatic fever and sometimes trichiniasis.

A long list of drugs has been used in this disease without benefit to the sufferers. Some

of them are: quinine, arsenic, calcium, autogenous vaccines, salicylates, urotropin, thyroid, prostigmine, ephedrine, guanidine, oxygen, sulfonomides, penicillin, and anti-histaminics. The tocopherols have given temporary benefit in some cases[19]. Testosterone has recently been suggested[20]. Para-aminobenzoic acid is the latest addition to the list[21]. We know of one case of dermatomyositis in which para-aminobenzoic acid was given without benefit, but we feel, because of the short duration and small dosage involved in the treatment of this case, that the results were inconclusive.

SUMMARY

A case of acute progressive dermatomyositis with dermatitis and edema is presented. Autopsy revealed only non-specific muscle degeneration, edema of subcutaneous tissues and skin, inflammation and degeneration of the myocardium, and congestion of all the viscera.

The recent theories of the etiology and pathogenesis are reviewed.

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19 Madison St.
4010 W. Madison

NEWS OF THE STATE



CHAMPAIGN

County Society Elects Officers—To Publish Bulletin.—Dr. G. F. Fishel, Tolono, was chosen president-elect of the Champaign County Medical Society at a meeting, December 8, and Dr. C. H. Drenckhahn was inducted into the presidency, succeeding Dr. J. C. Dallenbach. Dr. A. H. Leavitt was chosen secretary-treasurer, a position he has been filling since the recent death of Dr. J. J. Westra. Executive committee members named for three years are Drs. I. Brill and G. Calvin Williamson; for one year, Dr. C. T. Moss Jr. At the meeting it was announced the society will publish a 16 page printed bulletin, to be known as the Champaign County Medical Bulletin. The new publication will replace the previous mimeographed bulletin, "Sawbones Reporter," and will be issued monthly except July and August. It will be released the first Thursday of each month.

COLES

Personal.—Dr. Guy O. Pfeiffer, otolarynologist of Belleville, has removed to Mattoon where he has become associated with the Link Clinic.

COOK

Staff Election.—Dr. John J. Fahey, Skokie, was chosen president of the medical staff of St. Francis Hospital, Evanston, succeeding Dr. A. Konle. Dr. James X. Bremmer and Dr. R. M. Jones were reelected vice president and secretary-treasurer, respectively.

N. U. Receives $100,000 from Dr. Anna Lapham.—Northwestern University has received a gift of almost $100,000 from Dr. Anna Ross Lapham, first woman professor of the University's Medical School. Dr. Lapham, who is an assistant professor of obstetrics, emeritus, presented the gift to the department of obstetrics and gynecology to be used for research, scholarships and loans.

Dr. Lapham, who received her M.D. cum laude from Northwestern in 1898, joined the Medical School faculty in 1919 and was given her present emeritus rank in 1946. For many years she assisted the late Dr. Joseph B. DeLee, well-known obstetrician and founder of the Chicago Lying-In hospital. She has delivered more than 10,000 babies in her years of medical practice.

Construction Continues on West Side.—Another important project in the expansion program of the Medical Center District on Chicago's near West Side has been undertaken with the start of construction of a 14-story addition to the University of Illinois Research and Educational Hospitals.

Erection of the 411-bed teaching hospital represents one of the largest construction projects in the history of the University of Illinois. Construction contracts alone total $5,368,628.

State funds totaling $5,559,929 have been released by Governor Stevenson for the project.

It is anticipated that the building will be enclosed within a year, and that general work will be completed within 18 months.

Start of work on the addition to the University's Research and Educational Hospitals will raise the amount of present construction in the Medical Center District to more than $25,000,000. Other projects now under construction are the Veterans Administration Hospital, the Chicago State Tuberculosis Hospital, Cook County Interns' Residence, and the Nurses' Residence at Presbyterian Hospital.

In addition to providing facilities for 411 patient beds, the hospital addition will enable the University to handle more efficiently its clinic patients. More

than 7,000 patients received bed treatment at the Research and Educational Hospitals during the past fiscal year, while an additional 189,000 visits were handled in the 24 outpatient clinics.

Lectures for Alumni.—In cooperation with Mount Sinai Hospital, the Chicago Medical School will present a Post-Graduate Lecture series for alumni, and for others who may be interested. The lectures will be held in the Kling Auditorium of Mount Sinai Hospital, 15th Place and California Ave., Wednesdays, at 8:00 P.M.

Jan.	11	Acth and Cortisone — Their Promise and Limitations	Dr. R. Levine
	18	Use and Abuse of Hormones in Obstetrics and Gynecology	Dr. A. E. Kanter
	25	Recent Advances in Cardiology	Dr. Aldo Luisada
Feb.	1	Recent Contributions to The Cancer Problem	Dr. Kurt Stern
	8	Diagnosis of Common Peripheral Vascular Disorders	Dr. David I. Abramson
	15	Recent Advances in Therapy of Peripheral Vascular Disorders	Dr. David I. Abramson
	22	Recent Advances in Therapy of Blood Diseases	Dr. Steven O. Schwartz
March	1	Diagnosis of The Psychiatric Patient by The General Practitioner	Dr. Harry H. Garner
	8	Management of The Psychiatric Patient in General Practice	Dr. Harry H. Garner
	15	Early Recognition and Treatment of Emergencies in The Newborn	Dr. Maxwell P. Borovsky

Dr. Leo M. Zimmerman is Chairman of the Committee for Post-Graduate Seminars. He is assisted by: Drs. Maxwell P. Borovsky, Harry H. Garner, David Willis, Peter Gaberman, Piero P. Foa, Irving Siegel, Sidney R. Bazell, Henri DuVries, Frank Lawler, and Emily Svoboda.

Personal.—Dr. Walter J. Reich recently discussed "Current Trends in Gynecology" before the First District of the Ontario Medical Society in St. Thomas, Canada. — "Surgery of the Colon" was the title of a talk given by Dr. Philip Thorek, December 8, before the Brown-Door-Kewaunee Medical Society in Green Bay, Wisc.

DOUGLAS

Society Election.—Dr. Grant Jones, Arthur, was elected president of the Douglas County Medical Society at its December meeting, succeeding Dr. E. M. Tannis, Villa Grove, who was filling out the unexpired term of Dr. E. Kahan, Hindsboro, who moved to New York. Dr. Philip Deaver, Tuscola, was elected vice president, and Dr. E. S. Allen, Arcola, was reelected secretary-treasurer.

JACKSON

Personal.—Dr. E. L. Borkon, Carbondale, was elected president of the Holden Hospital staff, November 23. Other officers are Dr. Dan Foley, vice president and Dr. Ellis Crandle, secretary.

Regional Programs for Health, Recreation and Physical Education.—The Carbondale Herald recently announced that Southern Illinois University is considering inaugurating a three-way program on health, recreation and physical education. The tentative outline suggests establishing adequate recreational facilities for University students, a broad curriculum of training for teachers in recreation, physical education and health and a set up to provide camping education for children of Southern Illinois in cooperation with public schools. Dr. Carl N. Reilly, Marion, was recently appointed director of the health service at Southern Illinois University, succeeding Dr. Marie A. Hindrichs, resigned.

KNOX

Physicians Telephone Exchange Opened.—The Galesburg Physicians Telephone exchange was opened recently. Special equipment has been set up by the Intra State Telephone Company in the home of Mrs. A. W. Stephenson, 518 East Fifth Street, whereby she will handle calls twenty-four hours a day for local physicians.

LEE

Personal.—Dr. Clara Johns, health officer of Lee County, has resigned to become a clinical fellow at the Massachusetts General Hospital in Boston. Dr. Johns, a native of Rockford, has been in Lee County since 1946 and was recently made a diplomate of the American Board of Preventive Medicine and Public Health. At the quarterly meeting of the Lee County Board of Health, Dr. Gene Sullivan, a member of the board since it was organized three years ago, was elected president.

MC DONOUGH

St. Francis Staff Chooses Officers.—Dr. W. W. Holland was elected president of the St. Francis Hospital staff, Macomb, December 15, succeeding Dr. V. D. Adams. Dr. R. L. Franck, Bushnell, was named vice president to succeed Dr. Holland, and Dr. Eric E. Wisshack was reelected secretary-treasurer. Dr. Bruce A. Borum, Blandinsville, was elected as a new member of the executive committee, succeeding Dr. S. F. Russell, and Drs. W. M. Hartman and A. P. Standard were reelected to the executive committee.

MACON

Personal.—Dr. Everett S. Fagle, Decatur, was appointed county physician at an annual salary of

$900. He succeeds Dr. Ferris D. Highsmith who held the position for two years but who was not an applicant for reappointment.

Hospital Staff Chooses New Officers.—Dr. Dwight Pence was elected president of the Decatur and Macon County Hospital staff, December 15, Dr. James Waller, vice president, and Dr. Herbert Bavor, secretary-treasurer.

New Officers for Macon County.—Dr. Hyman J. Burstein, Decatur, has been chosen president of the Macon County Medical Society, succeeding Dr. V. M. Long. Other officers are Dr. D. F. Loewen, vice president and Dr. Ferris D. Highsmith, treasurer. Dr. Maurice D. Murfin, Decatur, was reelected secretary and reappointed alternate delegate to the Illinois State Medical Society. Dr. Arthur F. Goodyear was reelected delegate.

MADISON

Staff Election.—Dr. G. A. Rawlins was elected president of the medical staff of St. Joseph's Hospital at a meeting, December 13, succeeding Dr. Leo Konzen, Wood River. Dr. James McCloskey, was named vice president and Dr. Henry Halley, secretary-treasurer.

MARION

Society Election.—Dr. H. E. Snow, Centralia, was chosen president of the Marion County Medical Society at a recent meeting. Dr. E. F. Stephens was named vice president, and Dr. Jack Frost, secretary-treasurer.

MENARD

Dr. Moulton Fifty Year Member.—The Menard County Medical Society gave a dinner, November 23, to honor Dr. H. P. Moulton, Petersburg, and to mark his completion of fifty years in the practice of medicine. Dr. B. D. Epling, president of the society, presided. Dr. Moulton was presented with the insignia representative of his membership into the Fifty Year Club of the Illinois State Medical Society; the presentation was made by Dr. Ralph Peairs, Normal.

PEORIA

Physician Publishes Book.—Dr. Charles G. Farnum, Peoria, has had his first book published by the Exposition Press of New York. According to the Peoria Journal Transcript, Dr. Farnum's book, "Medicine Could Be Verse," is a collection of humorous poems which encompasses "pathological sonnets", "quarrelsome quatrains", and "cynical cinquains". Dr. Farnum is a former president of the Peoria Medical Society. His poems have appeared in the ILLINOIS MEDICAL JOURNAL and other medical publications.

Financial Gift to Methodist Hospital.—The Caterpillar Tractor Company has given $200,000 to the Methodist Hospital to finance the cost of constructing a new fourth floor of the hospital proposed five floor wing.

ROCK ISLAND

Personal.—Dr. Jane W. McMullen, Moline, has been named supreme physician of Royal Neighbors of America, filling the vacancy of the recent death of Dr. Hada M. Carlson, Moline, who held the position for twenty-eight years.

Woman Physician Chosen Outstanding Practitioner.—Dr. Phebe Pearsall was chosen outstanding general practitioner in Rock Island recently. Dr. Pearsall's married name is Mrs. Conrad C. Block.

ST. CLAIR

Staff Election.—Dr. Vivien P. Siegel, Belleville, was elected chief of the medical staff of St. Mary's Hospital, East St. Louis, succeeding Dr. E. W. Cannady. Other officers are Dr. Owen Eisele, vice president; Dr. Louis Kappel, secretary; Dr. H. J. Nebel, treasurer. One year terms as members of the executive committee will be served by Dr. Cannady, Charles F. Alderson and Kilian F. Fritsch Jr.

SANGAMON

Golden Wedding Anniversary.—Dr. and Mrs. T. F. Hill, Athens, recently observed their fiftieth wedding anniversary, all of which time has been spent in Athens, where Dr. Hill started practicing following his graduation at Rush Medical College. The physician has served as mayor of Athens, president of the board of education and is currently president of the Athens State Bank. He is a member of the Fifty Year Club of the Illinois State Medical Society. A son, Dr. Harold H. Hill, a commander in the navy medical corps, is stationed at the U. S. Naval Hospital, San Diego, as chief of the department of obstetrics and gynecology.

Fifty Years of Medicine.—Three members of the Sangamon County Medical Society were inducted into the Fifty Year Club of the Illinois State Medical Society at a recent meeting. Pins and certificate, emblematic of the honor, were presented to Dr. Walter S. Taylor and Dr. Arthur L. Hagler. Dr. Fred S. O'Hara, who was not present because of illness, was represented by his son, Dr. G. H. O'Hara. All three honored physicians reside in Springfield.

SHELBY

Dr. Cherry Honored.—At a regular meeting of the Shelby County Medical Society in Shelbyville, December 12, Dr. Thomas E. Cherry, Cowden, was presented with the insignia marking his acceptance into the Fifty Year Club of the Illinois State Medical Society. The presentation was made by Dr. C. H. Hulick, Councilor of the Seventh Councilor District.

STARK

Woman Physician Enters Fifty Year Club.—Dr. Alma Trimmer Wead, Wyoming, has been presented with the pin and certificate signifying membership in the Fifty Year Club of the Illinois State Medical

Society. Dr. Wead, and her husband, the late Dr. James Wead, and their oldest son, Dr. John T. Wead, were at one time associated in practice.

VERMILION

Society Election.—Dr. Richard Heaton, Hoopeston, on December 6 was elected president of the Vermilion County Medical Society succeeding Dr. Holland Williamson, Danville. Dr. O. J. Michael was named vice president and Dr. E. T. Baumgart was reelected secretary-treasurer.

WARREN

"Today's Personality."—The Monmouth Daily Review-Atlas, December 24, featured Charles P. Blair as "Today's Personality." The story reviewed Dr. Blair's career, pointing out that since his graduation at the University of Illinois College of Medicine, Chicago, in 1911 he had been active in civic and medical affairs, having served as a member of the Monmouth Board of Education from 1918 to 1946, and for a part of that period as secretary. Dr. Blair is a former member of the senate of Monmouth and numerous clubs. He served as secretary of directors of the Second National Bank of Monmouth. He served as secretary of the Warren County Medical Society from 1928 to 1946, is Councilor of the Fourth District of the Illinois State Medical Society and, among other positions in the state society, is Chairman of its Educational Committee. Dr. Blair's hobby is flying kites, many of which he makes himself. He is also a model railroad fan. The selection of Dr. Blair in local papers marked the third appearance of the new column.

WILL

Eighty-Five Years of Age.—Dr. Grant Houston, Joliet, was guest of honor recently at a dinner, given by his grandson, Dr. James D. Rogers, also of Joliet, to celebrate his eighty-fifth birthday. Dr. Houston has practiced in Joliet for more than fifty years.

GENERAL

Polio Team Formed.—Dr. Roland R. Cross on January 12, announced the formation of the Illinois State Polio Planning Committee, composed of members of all agencies dealing with diagnosis and treatment of this disease.

This committee, which has been formed at the request of Governor Adlai E. Stevenson, has as its purpose the coordination of the efforts of the various agencies in diagnosing and giving medical care to polio patients. The members of the committee will attempt to formulate procedures which will do away with duplication of services to polio victims and will enable these persons to get more complete and earlier care.

Members of the committee include Dr. Roland R. Cross, state director of public health, chairman; Dr. Harold M. Camp, Monmouth, secretary of the Illinois State Medical Society; A. Eugene Miller, Springfield, Illinois state relations officer of the American Red Cross; Dr. Herbert Kobes, Springfield, director of the state division of Services for Crippled Children; Miss Ruth Kirk, Sterling, president of the Illinois State Nurses Association; Andy Glosecki, Springfield, Illinois state representative of the National Foundation for Infantile Paralysis; Leo Lyons, Chicago, president of the Illinois Hospital Association; Rodney H. Brandon, Chicago, Illinois chairman of the Sister Elizabeth Kenny Foundation; Miss Ann Prochazka, Chicago, secretary, Illinois division of the American Physical Therapy Association, and Dr. Leonard M. Schuman, chief of the state division of communicable diseases.

HEALTH DEPARTMENT ACTIVITIES

Governor Appoints Health Advisers.—Governor Stevenson recently appointed the following persons to the board of public health advisers of the Illinois State Department of Public Health: Dr. Everett P. Coleman, Canton; Dr. James H. Hutton, Chicago; Dr. Edward Piszczek, Chicago; Lloyd H. Dodd, D.D.S., Decatur and Edison Dick, Lake Forest.

Annual Report on Health.—Summarizing the 1949 activities of the state department of public health, Dr. Roland R. Cross, director, on December 28, termed the year as outstanding in accomplishments.

"In addition to our long established services, several new and essential programs have been inaugurated and other functions advanced to the organizational stage," he said.

"Favorable legislation has permitted us to extend our activities in many important fields. An extension of state aid for local hospitals, the seperate appropriation for state tuberculosis hospital construction, strengthening of the sanitary water board's powers and needed changes in the law concerning local referendums on county health department formation have materially aided our program."

Dr. Cross related that in 1949 Illinois put into operation the most widespread tooth-saving program of any state in the nation. The health department's dental x-ray service has been expanded to provide more than 100,000 x-rays yearly. Four teams of dental experts will complete about 35,000 applications of decay-preventing sodium fluoride to the teeth of Illinois school children by the end of the 1949-50 school year.

Under a newly organized program of diagnosis and treatment of heart diseases, begun in July of this year, four projects, located in Springfield, Rockford, East St. Louis and Savanna are already functioning. The growing program of study and treatment of mental diseases has also been intensified this year.

"The additional appropriation for state aid to local hospital construction, made by the 66th General Assembly, is enabling us to more nearly approach our goal of adequate hospital facilities for the entire state. With the completion of the program which is now underway, the state, federal and local funds will combine to provide an additional

1,350 hospital beds to our present seriously inadequate hospital picture," Dr. Cross stated.

Likewise, progress in the development of county health departments, which are encouraged by the state health department, has been substantial this year, he told. Twenty-four counties are now covered with locally administered health departments, with two departments, in JoDaviess and Jackson counties, being developed during 1949.

"Although the program of assistance to premature infant centers is not new, we are proud of the record of this function during this year. More than 740 babies have been received at the three downstate centers this year and were given required special attention that most hospitals are unable to provide," Dr. Cross said.

The state's tuberculosis case finding program, carried on primarily through the use of mobile x-ray units which travel from community to community, has been of service to some 280,000 Illinois citizens during this year.

"It is largely due to this extension tuberculosis case finding program that Illinois' reported cases of tuberculosis have risen slightly this year," Dr. Cross said. "These units, which are going into every area of the state are finding many previously undiagnosed cases of this disease, which are in the early and more easily curable stages."

Since the first of the year, three new cancer clinics have been opened, bringing the total of such diagnostic centers to 24 within the state, operating with the assistance of the state department of public health, he told.

In these clinics, 4,150 patients were given first examinations in 1949, 4,802 received follow-up examinations and tissue examinations for 3,763 indigent patients were made.

Dr. Cross characterized this venture as "our first line in the fight against this complex and serious disease."

"In spite of the heavy incidence of polio during the past summer, the number of cases of reported communicable diseases remained substantially the same as last year," Dr. Cross reported. "Most of of these diseases, particularly the more serious ones such as typhoid fever, diphtheria and small-pox have been diminished to the point that we can point with pride at experiencing no increase in their prevalence.

"The death rate, from all causes, which last year was the lowest in Illinois history continued to decrease slightly this year. This is, I believe, the strongest kind of indication that the efforts of this department are affecting the life of nearly every person in this state," he concluded.

DEATHS

John Stanley Coulter, Chicago, who graduated at the University of Pennsylvania School of Medicine, Philadelphia, in 1909, and at the Army Medical School, Washington, D. C., in 1911, died in his home in Westville, Ind., December 16, aged 64, of cerebral hemorrhage. He was for many years chairman of the Council on Physical Medicine and Rehabilitation of the American Medical Association; treasurer and president of the American Congress of Physical Medicine, which in 1943 awarded him the gold key of merit; and he served on the advisory committee of the Parmly Foundation for Auditory Research. He was chairman of the department of physical medicine at Northwestern University Medical School.

John Peter Denby, retired, Carlinville, who graduated at Marion-Sims College of Medicine, St. Louis, in 1898, died in his home, December 16, aged 79. He was president and director of the Farmers and Merchants Bank, Carlinville, at the time of his death.

Frank H. Gardner, Moline, who graduated at the University of Illinois College of Medicine in 1893, died in his home, December 1, aged 85. He had received a degree in pharmacy from the same University in 1884.

Ascher H. C. Goldfine, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1913, died while attending a patient at a hospital, December 29, aged 63. He was associate professor of the department of obstetrics and gynecology at Loyola University School of Medicine from 1914 to 1942.

William Jacob Harned, Charleston, who graduated at St. Louis University School of Medicine in 1916, died in his home, December 8, aged 67. He began the practice of medicine in Charleston in 1936.

Sheldon A. Jackson, Olney, who graduated at the Chicago Medical School in 1936, died following a short illness, December 11, aged 42. He was the owner of the Jackson Hospital, Olney; in 1948 he was president of the Richland County Medical Society.

Howard Steward Maupin, Quincy, who graduated at the University of Illinois College of Medicine in 1914, died in his home, December 17, aged 59. He was a member of the staff of the Blessing Hospital, Quincy, and served as physician for Woodland and Cheerful Homes.

Katherine Martha Mayer, Chicago, who graduated at Rush Medical College in 1917, died December 15, aged 63. She was attending pediatrician at Children's Memorial and Evangelical Hospitals.

Andrew D. Miller, Sullivan, who graduated at Missouri Medical College, St. Louis, in 1891, died December 7, aged 85. He had practiced medicine in Sullivan more than 50 years and served three terms as mayor.

John Joseph Nolan, Oak Park, who graduated at Northwestern University Medical School in 1904, died December 16, aged 71. He had practiced medicine in Oak Park for 35 years.

Erwin John Rueck, Gifford, who graduated at Chicago College of Medicine and Surgery in 1913, died at Paxton Hospital, December 5, aged 63. He had practiced medicine 8 years at Thawville, 10 at Roberts and 15 at Gifford.

George H. Somers, Chicago, who graduated at University of Wooster, Medical Department, Cleveland, in 1890 and Long Island College of Medicine, Brooklyn, in 1891, died December 31, aged 91.

Allan Edgar Stewart, retired, Chicago, who graduated at Queen's University, Faculty of Medicine, Kingston, Ontario, in 1898, died recently, aged 76; formerly chairman of the surgical department of Loretto Hospital.

William Moore Thompson, retired, Chicago, who graduated at the Chicago College of Medicine and Surgery in 1909, died December 4, aged 71.

Thomas Gale Wallin, Chicago, who graduated at Bennett College of Eclectic Medicine and Surgery in 1913, died January 4, aged 64.

Herbert Lewis Williams, Bartonville, who graduated at Northwestern University Medical School in 1909, died January 5, aged 66.

"FOR THE COMMON GOOD"

Interest in Televised Health Talk Continues.—On December 6, Jack Mabley of the Chicago Daily News mentioned the weekly health telecasts of the Educational Committee of the Illinois State Medical Society entitled Health Talk as one of the outstanding programs on television. Don Foster in the Chicago Sun-Times, December 28, titled his column "TV Here to Stay", devoting the story to "Health Aspects of Television", reproducing the **Health Talk** of the Committee. Larry Wolters, in the Chicago Tribune December 28, also featured the story.

The Medical Association of Georgia planned to open its 1950 heart campaign on television in February, using the script of the fluoroscopic demonstration developed by the Committee and carrying credit to the Illinois State Medical Society for establishing this "first" on television.

The Indiana State Medical Association also has shown interest in the telecasts of the state medical society, as has Harvard University School of Public Health.

Spencer Allen of WGN-TV, one of the principal speakers at the conference for press and hospital representatives during the American College of Surgeons recently stated that other groups would do well in emulating the leadership of the Illinois State Medical Society in promoting health education via television.

"The Common Cold" was televised December 14, with Clayton G. Loosli of the University of Chicago School of Medicine. Visual emphasis was given by a patient, slides and movie.

"Care of the Premature Infant" was the title of the telecast, December 21. Participants were Herman N. Bundesen, President of the Chicago Board of Health, and Beatrice Hover, R.N., of his staff. Portable equipment for the care of the infant was taken to the studio. A premature infant, aged 5 weeks, was featured. Utensils and layette of the premature infant were shown.

"Burns" was televised, December 28, with Harvey S. Allen of Northwestern University Medical School. Patients, slides and blackboard demonstrations enhanced the visual demonstration.

"Getting Ready for School" was the title of the Health Talk telecast, January 4, with Eugene T. McEnery of Stritch School of Medicine of Loyola University. Patti Rae Chartrand, aged 6, was given a physical examination. The Illinois Society for the Prevention of Blindness cooperated in this telecast by making the visual chart available. In the examination Dr. McEnery emphasized the need of an examination by the dentist. The new school health blank of the Chicago and Illinois medical societies was featured, as well as the cooperation of the Chicago Board of Education.

"Hobbies for Health", January 11, was highlighted with an interview by Dr. Andy Hall, Mount Vernon, outstanding general practitioner of the year. Kenneth Scatliff introduced Dr. Hall, and physicians showing and discussing their hobbies were Harold M. Camp, fishing; Leo Zimmerman, wood-carving; Walter Priest, music; Jacques Smith, leather work. Ben Rappaport, painting.

Theodore R. Van Dellen, Assistant Dean, Northwestern University Medical School, and Medical Editor of the Tribune, acts as moderator on Health Talk telecast.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

F. Garm Norbury, Jacksonville, Chandlerville Woman's Club in Chandlerville, January 2, on Your Mental Health.

Ralph Hamill, Ravenswood Civic League in Chicago, January 6, on What Mental Hygiene Should Mean To You.

Paul K. Anthony, Mothers Club, Emerald Avenue Presbyterian Church, January 17, in Chicago, Understanding the Adolescent.

Adrian D. M. Kraus, Gallistel School PTA in Chicago, January 18, on Understanding Your Child.

Mr. Robert Krit, Illinois Division, American Cancer Society, North Avenue Larrabee YMCA in

Chicago, January 24, film "Traitor Within" and Cancer Control in the Individual.

Carl W. Christensen, Evanston, Antioch High School Social Organization, February 7, in Antioch, The Adolescent Rebellion.

Robert M. Kark, Woman's Auxiliary, Chicago Medical Society, February 14, on Present Trends in Nutrition Research.

Israel Sonenthal, South Bryn Mawr Wednesday Club, in Chicago, March 8, Mental Health.

Paul H. Wosika, Palos Park Woman's Club in Palos Park, March 9, on Understanding Your Heart.

Ralph Hamill, Phillip Rogers PTA in Chicago, March 13, narrator of film "Feeling of Hostility".

Mr. Louis de Boer, Mental Hygiene Section, Illinois Federation of Woman's Club, March 13, in Chicago, Recommendations of the Children's Commission of the Illinois Society for Mental Hygiene.

Carl W. Christensen, Evanston, Mundelein PTA in Mundelein, March 13, on Your Emotions and You.

Joseph T. O'Neill, Ottawa, Marseilles Jr. Woman's Club, March 14, on Health.

Ford K. Hick, Woman's Auxiliary, Chicago Medical Society, March 14, on Your Annual Physical Examination.

Morris Braude, Gage Park Woman's Club in Chicago, March 28, Mental Hygiene — Meaning, Scope and Prospects.

Joseph T. O'Neill, Ottawa, Garfield School PTA in Streater, March 23, on Sex Instruction.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society:

Louis R. Limarzi, Kankakee County Medical Society in Kankakee, January 10, on Current Management of Common Blood Disorders, illustrated.

Everett P. Coleman, Canton, Logan County Medical Society in Lincoln, January 19, on Diagnosis and Treatment of Acute Surgical Conditions of the Abdomen.

Max Sadove, Chicago, Iroquois County Medical Society in Watseka, January 17, on Recent Advances in Anesthesia.

James H. Hutton, Chicago, McDonough County Medical Society in Macomb, January 27, on Diagnosis and Treatment of Obesity.

Eugene A. Hamilton, Chicago, Whiteside-Lee Counties Medical Society in Rock Falls, February 9, Fracture of the Shaft of the Femur, illustrated.

William F. Lauten, Chicago, McDonough County Medical Society, February 24, in Macomb, Surgery of the Hand, illustrated.

Harvey S. Allen, Chicago, Whiteside-Lee Counties Medical Society, March 9, in Rock Falls, Treatment of Burns.

J. P. Nesselrod and Jay M. Garner, Evanston, McDonough County Medical Society in Bushnell, March 24, on Ano-Tectal Disease, and Proctoscopic Colored Movies.

Theodore R. Van Dellen, Chicago, Whiteside-Lee Counties Medical Society in Rock Falls, April 6, on Coronary Disease.

ATTRIBUTE RELIEF FROM SHAKING PALSY TO PSYCHOTHERAPY

Panparnit, a relatively new synthetic drug, has not fulfilled expectations as a treatment for shaking palsy, according to a group of doctors from Columbia University College of Physicians and Surgeons.

The drug, known as panparnit until recently, showed promise in early tests of becoming a superior treatment for the disease.

Favorable results in treating shaking palsy victims with panparnit seem to be produced to some extent by psychotherapy administered concurrently with the drug, the doctors say in the current Dec. 24 Journal of the American Medical Association.

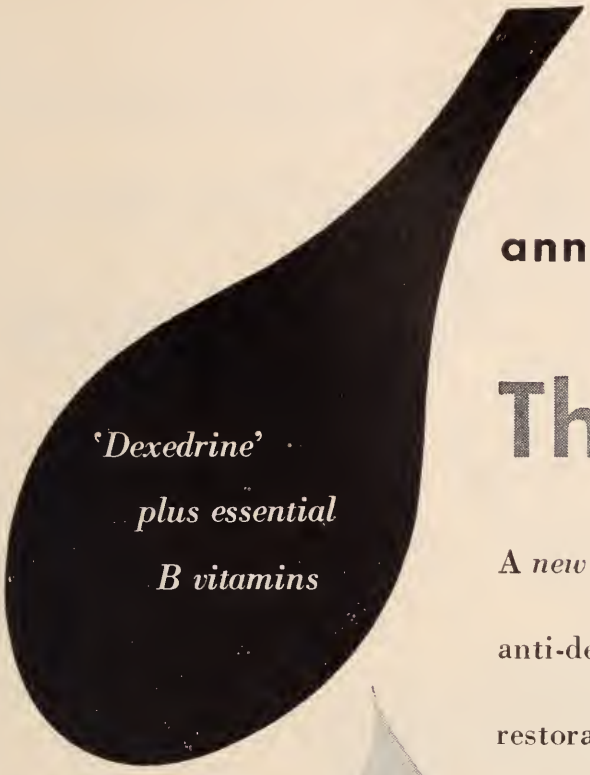
The doctors — Daniel Sciarra, Sidney Carter and H. Houston Merritt — treated 43 patients for various neurologic conditions with panparnit.

Twenty-eight of the 43 had shaking palsy. In only one of the 28 could improvement be attributed to panparnit, the doctors say.

Of the entire group of 43, three showed some improvement. Thirty-seven had dizziness, nausea, vomiting, drowsiness, weakness, or other undesirable symptoms caused by the drug.

"It may be concluded that panparnit is not more effective than drugs previously in general use," the doctors point out.

"Favorable results obtained by other investigators probably were influenced by the intrinsic fluctuations of the patient with chronic disease and by the many psychotherapeutic factors that are inherent in the clinical investigation of any drug."



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Theptine combines, in a light and pleasing elixir, the unique anti-depressant effect of 'Dexedrine'* Sulfate and the nutritional action of thiamine, niacin and riboflavin.

dosage:

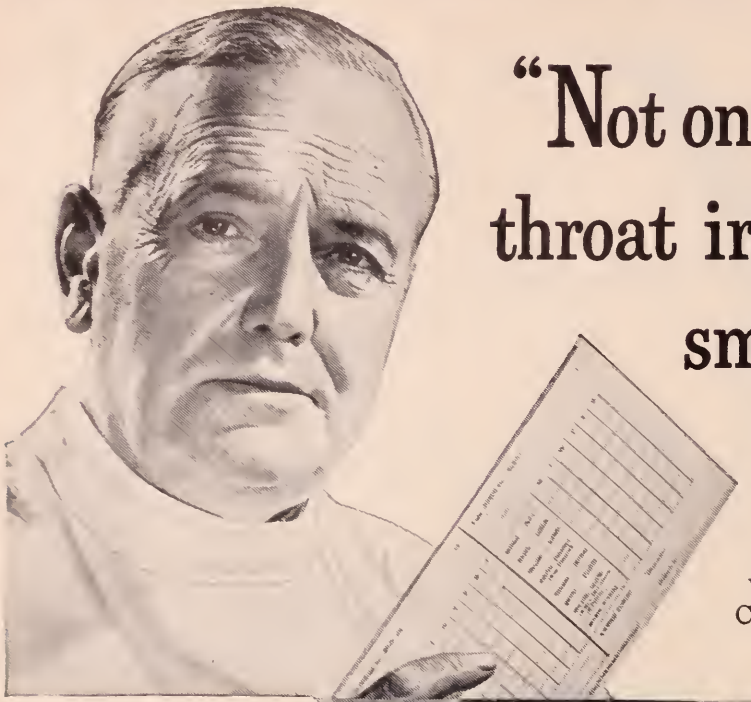
Theptine assures patient acceptance by virtue of its pleasant flavor and pleasing color. The usual dosage is one teaspoonful (5 cc.) three times a day, *after* meals.

Each 5 cc. contains:
'Dexedrine'* Sulfate, 2.5 mg.;
thiamine hydrochloride, 5.0 mg.;
riboflavin, 0.45 mg.; niacin, 6.7 mg.

Smith, Kline & French Laboratories, Philadelphia

*T.M. Reg. U.S. Pat. Off. for dextro-amphetamine sulfate, S.K.F.

Throat Specialists report on 30-day test of Camel smokers:



"Not one single case of throat irritation due to smoking Camels!"

Yes, these were the findings of throat specialists after a total of 2,470 weekly examinations of the throats of hundreds of men and women who smoked Camels—and only Camels—for 30 consecutive days.

R. J. Reynolds Tobacco Co., Winston-Salem, N. C.



Long Island housewife Edna Wright, one of the hundreds of people from coast to coast who made the 30-day Camel mildness test under the observation of throat specialists.



According to a Nationwide survey:

More Doctors Smoke Camels

than any other cigarette

Yes, doctors smoke for pleasure, too! In a nationwide survey, three independent research organizations asked 113,597 doctors what cigarette they smoked. The brand named most was Camel!

In Chronic Hepatitis Hepatic Insufficiency...Cirrhosis

A Better Tasting Choline

The extremely pleasant citrus flavor of Solution Choline Gluconate-C.S.C. overcomes one of the greatest obstacles to prolonged choline therapy. This preparation is exceptionally well tolerated and is readily taken in the prescribed dosage over the prolonged periods usually required in the treatment of chronic hepatic disorders.

Higher Choline Content

Containing 61.7% choline gluconate or the equivalent of 25% choline base, Solution Choline Gluconate-C.S.C. provides an exceptionally large amount of choline base equivalent per teaspoonful. *Adequate* dosage may be given for utmost therapeutic value. This greater choline content is made possible by the high concentration of the choline gluconate salt.

Outstanding Economy

In terms of choline equivalent, Solution Choline Gluconate-C.S.C. offers outstanding value to your patients. This point is of utmost importance since the management of chronic hepatitis, hepatic insufficiency, and cirrhosis of the liver usually involves treatment extending over a period of several months.

Solution Choline Gluconate-C.S.C. is available on prescription in 16 oz. bottles. Because of its economy, it is suggested that the original 16 oz. bottle be prescribed.

Solution
Choline Gluconate
C.S.C. Pharmaceuticals

A Division of COMMERCIAL SOLVENTS CORPORATION
17 East 42nd Street • New York 17, New York

PHYSICAL MEDICINE ABSTRACTS

JOHN S. COULTER, DEPARTMENT EDITOR



EXERCISE IN THE BATH: EVIDENCE OF ITS VALUE AS COMPARED WITH EXERCISE IN AIR

T. R. Togna. In THE BRITISH JOURNAL OF PHYSICAL MEDICINE, 12:4:105, July-August 1949.

Advantages of exercise in water.—This method of exercise offers the ideal solution to the problem of breaking through the vicious circle of growing decadence, by enabling everyone to make better use of the oxygen in the air breathed. By exercising the body in the bath, even very weak persons are enabled to take exercise which helps to restore, as far as possible, their bodily energy. This will become obvious when the nature of the gymnastics is considered.

Each exercise takes the form of a rhythmic movement, designed to bring every muscle of the body into concerted action and the body as a whole into a state of balanced activity; but, unlike other forms of activity, the bath movements are not strenuous. One is amazed to find that, even when they are performed vigorously, the pulse rate goes up by only a few beats. This is due to the nature of the exercises and to the fact that the buoyancy of the water almost entirely overcomes the force of gravity. The specific gravity of water is about the same as that of the body. In other words, the natural weight of the latter, or any part of it, is reduced to a minimum, the body being largely sustained by the water.

The object of performing the exercises in water is to counteract the gradual loss of elasticity by relieving the muscle of the muscular tension necessary to support the weight of the body in air. By means of the fuller muscular relaxation so obtained, the three essential properties of muscle—extensibility, retractility, elasticity — are provided with an economical action, capable of delaying the loss of muscular tone. The bather can find an indication of the valuable result obtained in his own case by taking his pulse rate before and immediately after exercise. He will find that his pulse rate is only increased by a few beats, however long the exercise has been continued, whereas, by attempting the same muscular movements in air, he will find himself exhausted within a minute or two, however young and healthy he may be.

Physiological effects.—As a result of the general circulation promoted by my system of exercise in the bath, oxygen and nourishment are more evenly carried to, and shared by, the tissues, through the maximum expansion of the lungs and consequent contraction and relaxation of the abdomen. In harmony with this action the blood in the big vessels of the abdomen, as noted above, is squeezed out and pumped into them again rhythmically. Congestion of the abdominal organs is prevented or relieved. The normal functions of the liver, pancreas, genitalia

(*Continued on page* 42)

Potent ORAL PENICILLIN for All Age Groups



White's **drop-cillin** —a truly palatable liquid for drop-dosage to infants and small children—administered direct from the dropper or added to the first ounce or two of formula or other liquid—no tablets to crush, in suitable cases no unwanted injections—

50,000 UNITS* IN ONE DROPPERFUL



White's **dram-cillin** —for children and adults—the pleasant palatability which assures round-the-clock dosage—high potency in convenient dosage:

100,000 UNITS* IN A TEASPOONFUL

SUPPLIED

DROP-CILLIN—Supplied in 9 cc. "drop-dosage" bottles containing 600,000 units of penicillin. Solution is pink in color. Accompanying calibrated dropper (filled to mark) delivers approximately 20 drops (0.75 cc.) containing 50,000 units of penicillin.*

DRAM-CILLIN—in 60 cc. "teaspoonful-dosage" bottles containing 1,200,000 units of penicillin. Solution is ruby-red in color. Each teaspoonful (approximately 5 cc.) provides 100,000 units of penicillin.*

*(*buffered penicillin G potassium*)

Supplied to the pharmacist as a dry white crystalline powder. Dispensed freshly prepared, these delicious vanilla-flavored solutions will retain full stated penicillin potency for seven days when refrigerated.

WHITE LABORATORIES, Inc., Pharmaceutical Manufacturers, Newark 7, New Jersey

and endocrine glands are preserved. The warmth of the surrounding water causes the capillaries of the skin to open, with the result that the skin becomes better nourished and more useful in quality, and the cleansing which takes place through its active pores assists the work of the kidneys.

CARDITIS IN POLIOMYELITIS: AN ANATOMIC STUDY OF THIRTY-FIVE CASES AND REVIEW OF THE LITERATURE

Theodore E. Ludden, M.D., and Jesse E. Edwards, M.D., From the Mayo Clinic, Rochester, Minn. IN THE AMERICAN JOURNAL OF PATHOLOGY, 25:3:357, May 1949.

This investigation was undertaken because of the relative paucity of reports in the literature regarding cardiac lesions in cases of acute poliomyelitis and because we observed certain unusual cardiovascular lesions during the 1946 epidemic in Minnesota.

Myocarditis occurs frequently in acute poliomyelitis, having been observed in 14 (40.0 per cent) of 35 cases of fatal poliomyelitis.

Acute vegetative endocarditis and endarteritis of a patent ductus arteriosus may occasionally be found in acute poliomyelitis. One example of each of these lesions was present among the cases in this study.

Since the cardiovascular lesions occurring in the cases included in this study were otherwise unsatisfactorily explained, poliomyelitis virus must be considered as a possible cause of such lesions.

Proof that cardiovascular lesions in acute poliomyelitis are caused by the poliomyelitis virus will depend on demonstration of the virus in the lesions and the experimental production of such lesions.

The diagnosis of myocarditis in acute poliomyelitis is seldom made during life. Myocarditis should be suspected in every patient who is seriously ill with acute poliomyelitis.

Myocarditis, as observed in this series of cases, was usually more severe and proportionately more common in adult than in young children.

The ratio of males to females in the group of patients with myocarditis was 2.5:1, but since the ratio of males to females in the study was more than 3:1, actually a slightly greater proportion of females had myocarditis.

There was no specific correlation of type of paralysis — bulbar or spinal — with the presence or absence of myocarditis.

The actual role of myocarditis as a cause of sudden death in acute poliomyelitis could not be determined in this study, except in one patient, who had a perforation of the right atrium. Three of the 6 patients who died suddenly were found to have myocarditis, but all of these patients had bulbar involvement, which might have explained their sudden deaths.

THE CHRONIC SICK UNDER NEW MANAGEMENT: EXPERIENCES IN STARTING A GERIATRIC UNIT

A. N. Exton-Smith, M.A., M.B., and G. S. Crockett, M.A., M.B. In THE LANCET, No. 6563, p. 1016, June 11, 1949.

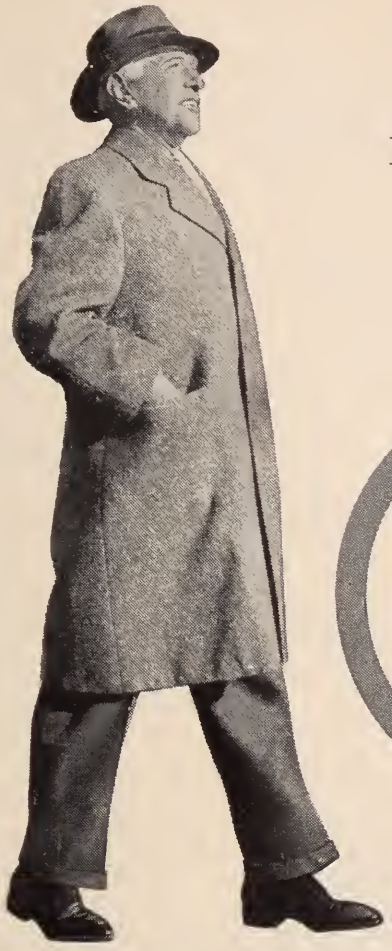
This paper describes observations at a hospital for the chronic sick during the first few months after it was taken over by a London teaching hospital. A geriatric unit has been formed, under the care of a consultant, with facilities for investigation, treatment, and research; and this is, we understand, the first unit of its kind in this country to be established as a part of a teaching hospital.

Physical therapy.—Physical therapy is needed at every stage of rehabilitation. Exercises, carefully explained and performed, either individually or in a class, are paramount, and there seems little place for the more time-consuming and expensive methods of physical treatment, such as short-wave diathermy, unltraviolet light, and faradism.

Occupational therapy.—A carefully chosen program of occupation can renew interest in life, allay mental deterioration, disguise progressive failure of mental and physical powers to the patient, and help to treat specific conditions in which there is muscle incoordination or risk of losing mobility of joints. This applies particularly to those who must obviously remain bedridden for the rest of their days.

Patients often are hesitant in starting this form of treatment, and occupations showing quick results for little labor are most suitable at first. To maintain interest, the patient must not only feel a sense of achievement in being able to

(*Continued on page* 46)



Patient under Treatment

FOR URINARY

TRACT INFECTION

can be given

Gratifying Relief

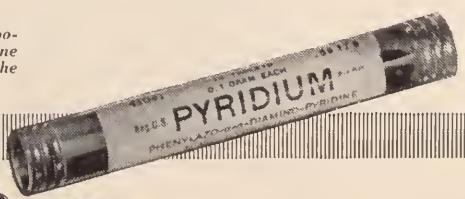
from distressing symptoms

Prompt and effective relief from distressing symptoms of urinary tract infections often can be achieved through the action of orally administered Pyridium.

The analgesic action of Pyridium is entirely local, reducing the urinary frequency and pain and burning on urination, without systemic sedation or narcotic action.

Pyridium is virtually nontoxic in therapeutic dosage and can be administered concomitantly with streptomycin, penicillin, the sulfonamides, or other specific therapy.

Pyridium is the trade-mark of the Pyridium Corporation for its brand of Phenylazo-diamino-pyridine HCl. Merck & Co., Inc. sole distributor in the United States.



The complete story of Pyridium and its clinical uses is available upon request.

Pyridium®

(Brand of Phenylazo-diamino-pyridine HCl)

MERCK & CO., Inc. Manufacturing Chemists RAHWAY, N. J.

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for prompt relief of pain in:

simple headache
neuralgia
neuritis
grippe
dysmenorrhea
sinusitis
muscle and joint discomfort
rheumatism

...write "Edrisal"

Edrisal is remarkably effective. This is because it is the only analgesic preparation that contains 'Benzedrine' Sulfate, the rational anti-depressant. Edrisal, therefore, not only relieves the pain itself but also—by lifting your patient's mood—lessens his concern with his pain. Best results are usually obtained with a dosage of *two* Edrisal Tablets—repeated every three hours, if necessary.

Smith, Kline & French Laboratories, Philadelphia

Each Edrisal tablet contains Benzedrine* Sulfate (racemic amphetamine sulfate, S.K.F.), 2.5 mg.; acetylsalicylic acid, 2.5 gr.; and phenacetin, 2.5 gr. Available on prescription only.*

Edrisal

its dual action relieves pain, lifts mood

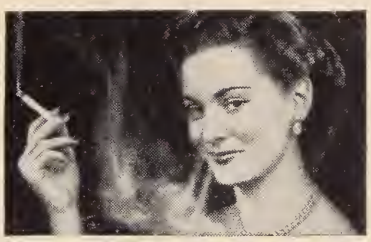
*'Benzedrine' and 'Edrisal' T.M. Reg. U.S. Pat. Off.

DOCTOR, WILL YOU MAKE THIS NOSE TEST?

SEE AT ONCE PHILIP MORRIS ARE LESS IRRITATING

It is one thing to read published studies.* Quite another to have your own personal experience provide the proof! The PHILIP MORRIS nose test takes but a moment. Won't you try it?

HERE IS ALL YOU DO:



1 ...light up a **PHILIP MORRIS**

Take a puff—DON'T INHALE. Just s-l-o-w-l-y let the smoke come through your nose. AND NOW...



2 ...light up your present brand

Do exactly the same thing—DON'T INHALE. Notice that bite, that sting? Quite a difference from PHILIP MORRIS!

With proof so conclusive, would it not be good practice to suggest PHILIP MORRIS to your patients who smoke?

PHILIP MORRIS

Philip Morris & Co., Ltd., Inc.
119 Fifth Avenue, New York, N.Y.

* *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241-245; *N.Y. State Journ. Med.*, *Vol.* 35, 6-1-25, *No.* 11, 590-592; *Laryngoscope, Feb.* 1935, *Vol. XLV, No.* 2, 149-154; *Laryngoscope, Jan.* 1937, *Vol. XLVII, No.* 1, 58-60



make things, but must know that what he makes is being put to some use.

While rehabilitation was proceeding, the patient's social history was investigated by the almoner, with a view to reestablishing lost contacts with relatives and examining the possibility of a return to his home, if and when he becomes fit enough. It was encouraging to find that some 30 per cent of bedridden patients had become ambulant after a few months. With the improvement in the patients' physical state, their apathetic attitude and the atmosphere of apprehension began to disappear. It is interesting, however, that their reactions to efforts to make them more mobile were mixed (this is also reported by Thomson 1949); some were delighted at becoming more independent, but others were diffident.

PARALYTIC POLIOMYELITIS: THE EARLY SYMPTOMS AND THE EFFECT OF PHYSICAL ACTIVITY ON THE COURSE OF THE DISEASE

W. Ritchie Russell, M.D., F.R.C.P. In BRITISH MEDICAL JOURNAL, No. 4602, p.465, March 19, 1949.

This paper is based on the careful questioning of 100 patients (59 males and 41 females) who were convalescent from poliomyelitis, and who were old enough to give a good account of their early sypmtoms. The number of pure bulbar cases is small, as these patients were often either unfit to be questioned, or, having been discharged home after a short period of convalescence, no longer available.

In 100 cases of poliomyelitis the early symptoms have been studied in detail.

The prodromal stage, when present, consists usually of a brief nonspecific illness, but neurological sypmtoms occasionally appear even at this early stage.

The preparalytic stage is the most critical period of the disease. Spinal sypmtoms in "typical" cases begin abruptly, and occurred in 95 of the 100 cases. They are of great value in diagnosis, but are very variable as regards both type and severity.

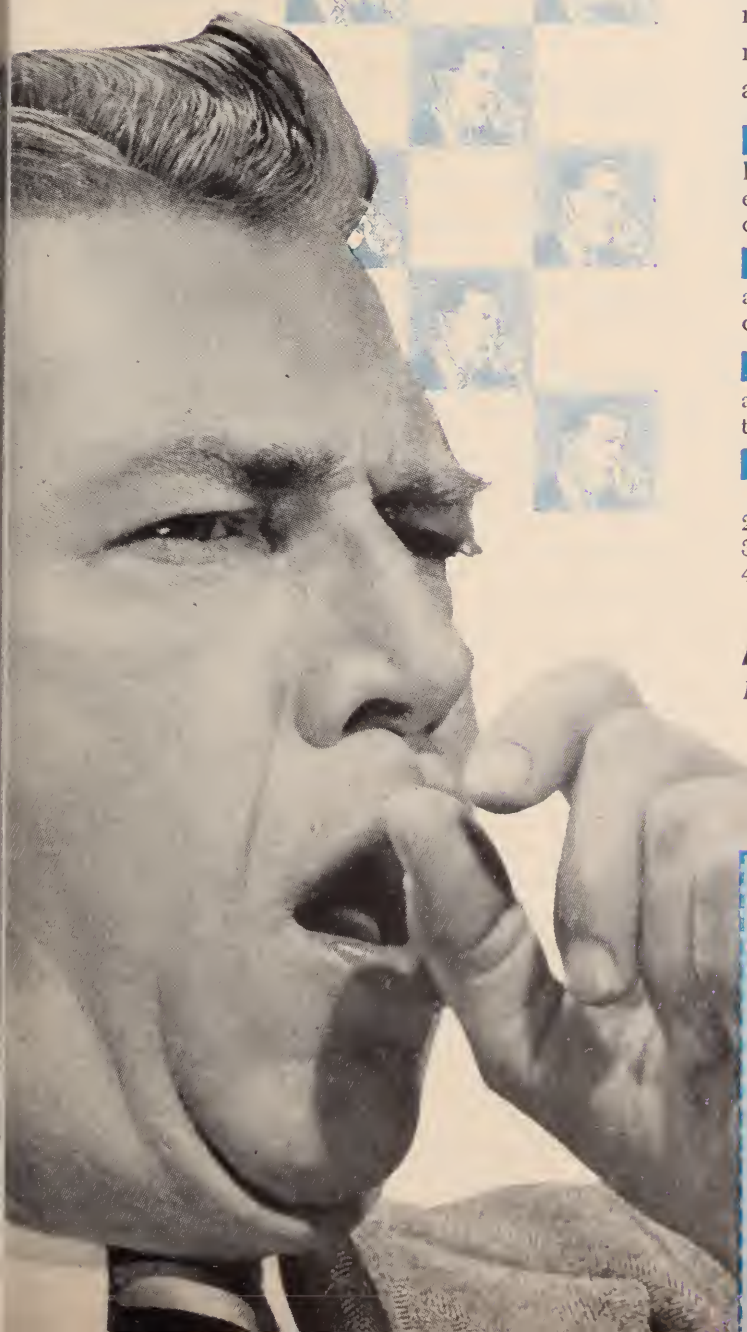
Two or more phases of the preparalytic stage may appear, and paralysis may spread in two or more stages. The spinal symptoms may subside before paralysis developes.

(Continued on page 48)

by every clinical criterion

a better,

more rational cough therapy



In Robitussin 'Robins', *glyceryl guaiacolate* (reported to exert the most intense and prolonged action of all expectorants[1,4]) has been united with the adrenergic stimulant, *desoxyephedrine* (to relax bronchioles[3] and improve the patient's mood and sense of well-being[2]), in an aromatic, syrupy vehicle. Thus, in welcome contrast to the older empirical approach, Robitussin is highly rational and effective, yet non-toxic and non-narcotic. It helps make expectoration easier and freer—and eases dry, irritating cough.

INDICATIONS: Acute head and chest colds, bronchitis, laryngitis, tracheitis, pharyngitis, pertussis, influenza, measles, etc.; also helpful as a palliative of harmful cough in tuberculosis, chronic paranasal sinusitis, tobacco cough.

COMPOSITION: In each 5 cc. (1 teaspoonful) of palatable aromatic syrup: glyceryl guaiacolate, 100 mg., and desoxyephedrine hydrochloride, 1 mg.

DOSAGE: *Children:* One half to one teaspoonful according to age, three or more times daily. *Adults:* One or two teaspoonfuls as necessary, every two or three hours.

REFERENCES:
1. Connell, W. F. et al.: Canadian M.A.J., 42:220, 1940.
2. Foltz, E. E. et al.: J. Lab. & Clin. Med., 28:603, 1943.
3. Novelli, A. and Tainter, M. L.: J. Pharmacol., 77:324, 1943.
4. Perry, W. F. and Boyd, E. M.: J. Pharmacol. Exper. Therap., 73:65, 1941.

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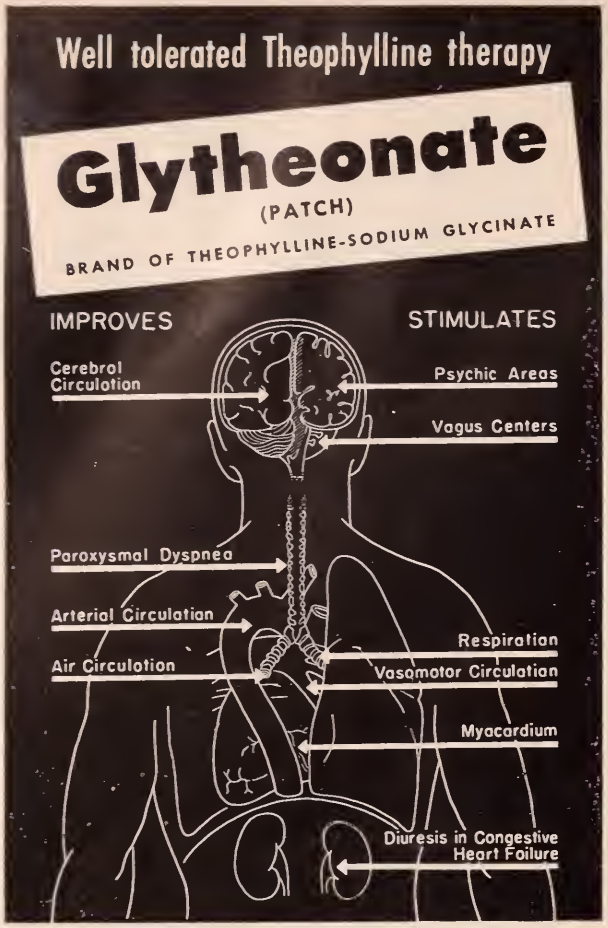
Ethical Pharmaceuticals of Merit since 1878

To facilitate productive cough

. . . to minimize harmful cough

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GLYTHEONATE is a combination of theophylline and sodium glycinate representing 50% theophylline U.S.P.

GLYTHEONATE permits intensive oral theophylline therapy with minimal gastric irritation[1, 2] in treating bronchial asthma and Cheyne-Stokes respiration, and in relieving paroxysmal attacks of cardiac dyspnea. Indicated in all cases where aminophylline is used.

Available as:

TABLETS Plain (Uncoated)—containing theophylline-sodium glycinate 325 mg. (5 grs.), representing theophylline U.S.P. 162 mg. (2½ grs.). In bottles of 100 and 500.

SYRUP—Each teaspoonful (5 cc.) contains theophylline-sodium glycinate 325 mg. (5 grs.) representing theophylline U.S.P. 162 mg. (2½ grs.). In pint and gallon bottles.

SUPPOSITORIES (Rectal)—containing theophylline-sodium glycinate 0.78 Gm. (12 grs.), representing theophylline U.S.P., 0.39 Gm. (6 grs.). Boxes of 12 suppositories.

Also tablets with Phenobarbital, tablets with Phenobarbital and Racephedrine and tablets with Phenobarbital and Rutin.

1. Paul, W. D., and Montgomery, A. E.: J. Iowa State M. Soc. 38:237 (June) 1948.
2. Bubert, H. M. and Cook, S.: S. Med. Journ. 41:146 (Feb.) 1948.

THE E. L. PATCH COMPANY, Stoneham, Mass.

Physical Medicine (Continued)

In "atypical" cases the onset of the preparalytic stage is vague, and the symptoms of a prodromal stage may appear to merge into the preparalytic stage.

An unusual amount of physical activity immediately preceded the preparalytic stage.

Complete physical rest in bed from the onset of the preparalytic stage greatly reduces the danger of severe paralysis. Severe physical activity at this stage is almost sucidal, while the continuance of even average physical activity is dangerous.

The possible effect of trauma in localizing the disease is considered.

During an epidemic physical activity should be avoided entirely in minor illnesses. The highly dangerous belief that malaise and other vague symptoms should be "worked off" by excercise requires correction.

THE PATIENT WITH BULBAR-RESPIRATORY POLIOMYELITIS

Frederic J. Kottke, M.D., and William G. Kubicek, Ph.D. In THE AMERICAN JOURNAL OF NURSING, 49:6:374, June 1949.

The polio patient with bulbar and respiratory paralysis presents a number of serious nursing problems. Bulbar involvement with paralysis of the muscles of the palate, pharynx, and larynx makes it difficult or impossible for the patient to maintain an open airway. Partial or complete obstruction of the airway through the nose, pharynx, larynx, and trachea results in hypoxia (insufficient oxygen), aspiration of mucus into the trachea and lung, and pulmonary edema. When mucus or saliva is aspirated atelectasis and pneumonia result.

Paralysis of the respiratory muscles makes assitance in ventilation imperative, or the patient will suffocate. At the present time adequate assistance to respiration can be obtained only by placing the patient in a tank-type respirator which immobilizes him almost completely. This adds further hazards to survival. It is difficult to reach the patient. It is hard to treat him in any position except on his back. Prolonged immobilization on the back results in pulmonary congestion and pulmonary edema with a progressive decrease of usefnl lung volnme. The forced inspiration of the respirator results in aspiration of material from the pharynx into the trachea and the lung.

(*Continued on page* 50)



after tonsillectomy...

the chewing of **Aspergum,** before mealtime, effectively relieves pain, lessens muscle spasm, contributes to patient comfort.

DILLARD'S

aspergum

SALIVARY ANALGESIA

Contains 3½ grains of aspirin in a pleasantly flavored chewing gum base—particularly suitable for administering aspirin to children and to patients who have difficulty swallowing tablets. *Ethically promoted.*

Aspergum is available at all prescription pharmacies in bottles of 36 and 250, packages of 16.

WHITE LABORATORIES, INC.,
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Newark 7, N. J.

Physical Medicine (Continued)

The nurse who is caring for a polio patient with bulbar-respiratory polio needs to be on the alert constantly for signs that the patient is not getting an adequate exchange of air. The earliest symptoms of inadequate ventilation or asphyxia usually are due to accumulation of small amounts of carbon dioxide. One of the first signs is an increase of the pulse rate. The pulse rate is a very sensitive index of asphyxia, and often precedes by a number of hours other important signs of asphyxia or hypoxia. Mild asphyxia also produces apprehension in the patient long before he has reached the stage where there is any cyanosis. A rise of body temperature may be a sign of a decrease of oxygen saturation in the blood. When the patient's temperature begins to rise, he should be examined carefully to see that it is not due to partial obstruction of the airway with an inadequate supply of oxygen. Cyanosis is a very late sign of inadequate oxygenation. When it occurs it means that the patient has already passed the danger level of hypoxia. Consequently, care of the patient should be such that cyanosis never develops.

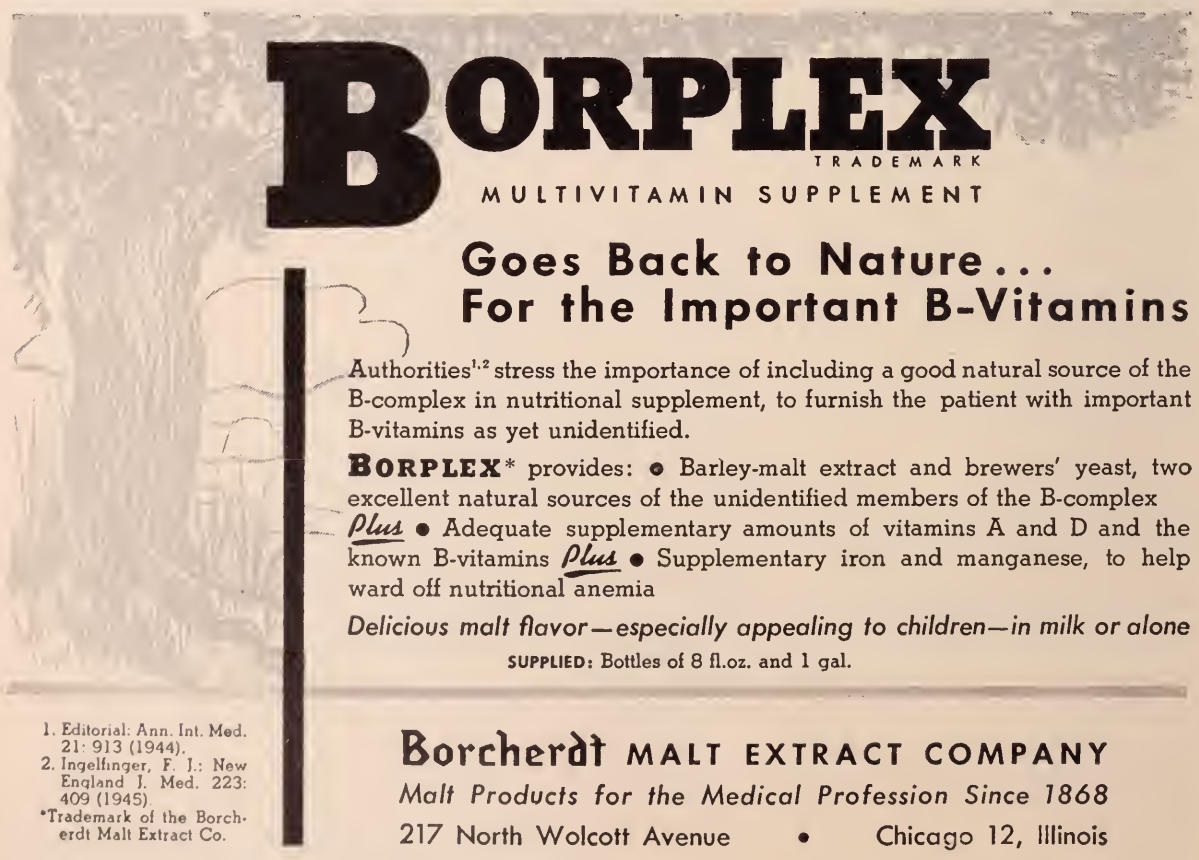
PAINFUL CONDITIONS OF THE FOOT AND ANKLE

Philip Lewin, Professor of Bone and Joint Surgery, N U Medical School, Chicago. In POSTGRADUATE MEDICINE, 6:4:292. October, 1949.

In a normal leg, a plumb line dropped from the center of the hip joint (Figure 1), through the middle of the patella, should bisect the leg and point to a spot between the first and second toes. In the pronated foot the line falls medialward, producing stress and strain, a defect which is bound to be followed by disability sooner or later.

The chief causes of flat feet are hereditary, static, traumatic, infectious, occupational, or glandular. Obesity is a very important factor, for whether it causes the flat feet or not, it aggravates them and keeps them painful.

The treatment of flat feet includes rest and local applications, walking properly, modification of shoes, supports, exercises, massage, contrast sprays, and operation. The operations are chiefly closed manipulation and casts and open operations on bones and soft tissues.





Because gradual lowering of blood pressure is so important in hypertension, Nitranitol is almost universally prescribed in such cases. Its gradual action and its ability to maintain lowered pressure for prolonged periods make Nitranitol an ideal vasodilator. Nitranitol, virtually nontoxic, is safe to use over long periods of time. It is available in these three forms:

- **When vasodilation alone is indicated.** *Nitranitol.* (½ gr. mannitol hexanitrate.)
- **When sedation is desired.** *Nitranitol with Phenobarbital.* (¼ gr. Phenobarbital combined with ½ gr. mannitol hexanitrate.)
- **For extra protection against hazards of capillary fragility.** *Nitranitol with Phenobarbital and Rutin.* (Combines Rutin 20 mg. with above formula.)

NITRANITOL®

For gradual, prolonged, safe vasodilation

Merrell
1828
CINCINNATI • U.S.A.

Two-Way Protection



TO MINIMIZE THE ELEMENT OF CHANCE

The element of chance in conception becomes an element of danger when pregnancy or childbirth is contraindicated. To reduce this risk to the barest minimum, many authorities recommend the combined use of the Lanteen Flat Spring Diaphragm and Lanteen Jelly.

By prescribing the Lanteen Diaphragm and Jelly method of contraception, the physician assures his patient:

1. **DEPENDABLE TWO-WAY PROTECTION.** Combined use of the Lanteen Flat Spring Diaphragm and Lanteen Jelly provides effective mechanico-chemical protection against pregnancy—the barrier effect of the diaphragm augmenting the potent sperm-destroying action of the jelly.

2. **CLOSE MEDICAL SUPERVISION.** The teaching of the improved Lanteen Technique encourages the return of the patient for medical supervision at regular intervals and discourages over-the-counter prescribing. With the combined use of the Lanteen Flat Spring Diaphragm and Jelly, return visits for periodic fittings enable the doctor to correct faulty patient technique, make necessary changes in the diaphragm size and maintain check on the patient's health.

Write for a complimentary copy of the illustrated brochure, "Improved Method of Contraception."



Lanteen

Lanteen Jelly contains: Ricinoleic Acid, 0.50%; Hexylresorcinol, 0.10%; Chlorothymol, 0.0077%; Sodium Benzoate and Glycerine in a Tragacanth base.

Leaders in the Development of Contraceptive Methods

LANTEEN MEDICAL LABORATORIES, INC., 2020 Greenwood Street, Evanston, Illinois

low cost...

twice as potent as ingested methyltestosterone



Metandren Linguets are specially prepared to facilitate absorption of methyltestosterone through the oral mucosa Numerous reports indicate that in the average case, dosage with the Metandren Linguets need be only half that with ingested tablets of methyltestosterone.

Therefore, Metandren Linguets have been called "the most economical and also efficient way of administering testosterone."[1]

1. Lisser, H.: Calif. & West. Med. 64: 177. 1946

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PERANDREN is the pioneer brand of testosterone propionate, the most potent injectable androgen.

Ciba PHARMACEUTICAL PRODUCTS, INC.
SUMMIT, NEW JERSEY

METANDREN, LINGUETS—Trade Marks Reg. U. S. Pat. Off. 2/1529M

BOOK REVIEWS



CLINICAL CASE-TAKING: Guides for the Study of Patients. History-Taking and Physical Examination or Semiology of Disease in the Various Systems. By George R. Herrmann, M.D., Ph.D. Professor of Medicine, University of Texas. 4th Ed. C. V. Mosby Co., St. Louis. 1949. $3.50.

This small book on the routine history and physical examination is intended for students. It emphasizes the fact that in most cases a good history and a careful physical examination are sufficient for diagnosis, without the addition of numerous cumbersome and expensive laboratory procedures. The book is unusual in that it includes essential points that should be looked for in cases involving the various systems in addition to the routine examinations.

J.C.S.

MAYO CLINIC DIET MANUAL: By The Committee on Dietetics of the Mayo Clinic. 329 pages. Philadelphia and London: W. B. Saunders Company, 1949. Price $4.00.

This book contains the standard diets in use at the Mayo Clinic. The diets listed are described in more or less technical terms and are not intended for use by the patient. Empiricism has been avoided so far as possible.

This book is paper bound, and well-printed on good quality paper, which is more than one can say for most hospital diet manuals. It is useful for the purpose for which intended.

J.C.S.

A TEXTBOOK OF NEUROPATHOLOGY — With Clinical, Anatomical and Technical Supplements: By Ben W. Lichtenstein, B.S., M.S., M.D., Associate Professor of Neurology, the University of Illinois College of Medicine; State Neuropathologist, Illinois Neuropsychiatric Institute. New, 1st Edition. 474 pages with 282 figures. Philadelphia & London: W. B. Saunders Company, 1949. Price $9.50.

This book is written primarily for the medical student and those training in neurology, psychiatry, pathology, and neurological surgery. It contains a good deal of clinical material as well as morbid anatomy, the author's view being that neuropathology should be as much concerned with pathological physiology as with anatomical changes.

In addition to a full discussion of the varieties of pathological changes in the central nervous system there are supplements on clinical aspects, anatomy and technic. The book of clearly written, the excellent and numerous illustrations are well chosen, and the careful correlation of clinical with pathological material makes this a worthy addition to the interested student's library.

J.C.S.

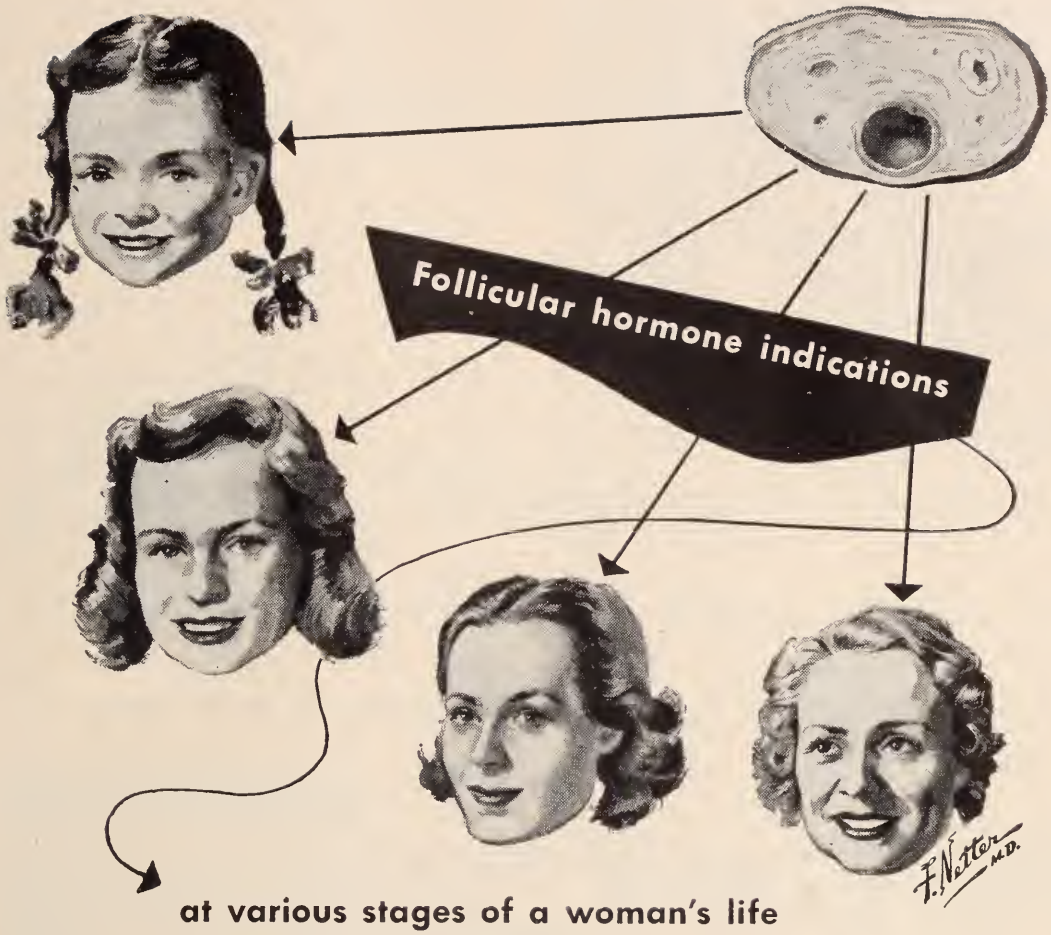
CLINICAL ORTHOPTICS, DIAGNOSIS AND TREATMENT by Mary Everist Kramer, Supervisor, The Orthoptic Department, The George Washington University Hospital, Washington, D. C. Edited by Ernest A. W. Sheppard, M.D., Professor of Ophthalmology, The George Washington University School of Medicine, Washington, D. C. and Louisa Wells-Kramer, Certified Orthoptic Technician, Washington, D. C. 147 Illustrations. The C. V. Mosby Co., St. Louis, Missouri. 1949. Price $8.00.

Miss Kramer has produced a valuable contribution on the disturbance of ocular motility; the phorias, the tropias and the paralyses.

The first chapters deal with the anatomy and physiology of the visual apparatus, and with the visual pathways and oculomotor system, and with optics.

Succeeding chapters present discussions of the ocular

(*Continued on page* 56)



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BOOK REVIEWS (Continued)

motor anomalies, the principles and techniques of diagnostic tests, and orthoptic treatment.

The illustrations include both diagrams and photographs. The various chapters are closed with references and with questions relative to the material covered.

A short chapter on surgery of strabismus stresses direction of operation to the type of deviation rather than to the degree of deviation and the type of operative technique.

This is an excellent reference book for students and technicians of orthoptics and for eye physicians and surgeons.

L. P. A. S.

Surgical and Maxillofacial Prosthesis by Oscar Edward Beder. 51 pages. Columbia University Press, Morningside Heights, New York. Price $3.00.

This excellent book deals with an extremely necessary and valuable branch of dental art and science.

As the author states, this field of maxillofacial prosthesis is not a new one. Down through the ages attempts have been made to devise means and methods "to protect, or directly or indirectly restore, structures that are injured or lost by congenital or acquired means".

It appears fitting that the dentist, because of his knowledge of the construction and skill in using materials to fashion these prosthetic appliances, should be welcomed by surgeons seeking aid.

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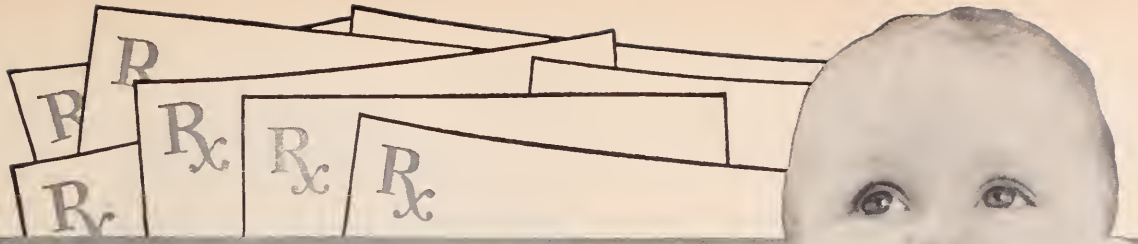
The author in his subject matter covers practically every phase of the work done in conjunction with Maxillofacial and Plastic and Reconstructive Surgery. The nine chapters are written in concise and informative manner, the illustrations and drawings are adequate, and from the technics outlined and well described, dentists and all interested in the construction of these appliances cannot fail to grasp salient facts and improve methods they may now be following.

The chapters on intra-oral skin grafting, construction of splints and obturators or speech appliances are particularly acceptable, but they are all worthwhile.

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III. STENTS: THEIR USE IN INTRAORAL GRAFTS OF SKIN OR MUCOUS MEMBRANE.
IV. PROTECTIVE SHIELDS IN RADIATION THERAPY.
V. OBTURATORS.
VI. APPLIANCES TO CORRECT RESECTED OR MISSING PORTIONS OF THE MANDIBLE.
VII. EXTRAORAL IMPRESSIONS.
VIII. SOMATOPROSTHESES.

(Continued on page 58)



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BOOK REVIEWS (Continued)

IX. CRANIAL PROSTHESES.

The book can be recommended to surgeons and dentists, dental students will find it a stimulating source of information and material for study.

F. W. M.

TEXTBOOK OF MEDICINE: By Various Authors, Edited by Sir John Conybeare, K.B.E., M.C., D.M. (Oxon), F.R.C.P. Ninth Edition. Pages 875. Publisher: The Williams and Wilkins Company, Baltimore. Price: $8.00.

This book is a useful contemporary textbook of medicine and expresses the views of many British authorities. Being published in the ninth edition attest to the popularity of it among English physicians. The terminology is somewhat confusing to the American and descriptive detail is frequently lost by generalities. The outline of the book follows the usual regional classification. There are several excellent x-ray reproductions. The reader will find some difficulty with the nomenclature of drugs. In addition to clinical presentation the technique of various diagnostic procedures is described. Tables of physiological standards are included. The textbook in general is quite complete in coverage.

J.W.F.

ATLAS OF ROENTGENOGRAPHIC POSITIONS: By Vinita Merrill while educational director of Picker X-Ray Corporation. Two Volumes. Publisher: The C. V. Mosby Company, St. Louis. 1949. Price $30.00.

This Atlas of x-ray positioning presents one of the most thorough references yet to appear in the knowledge of the reviewer. The illustrated techniques are taken from authorities from over the world. The procedures are both standard and specialized. The book was primarily published for technicians and includes much valuable information in such non-clinical respects as the general conduct of technicians, ethics, asepsis in the operating room, care of the radiograph rooms, isolation ward technique. There are also discussions of developmental anatomy, general anatomy, physiology, and a glossary of anatomical terms. To physicians interested in roentgenology this book should be very valuable when certain specialized procedures are required.

J.W.F.

OPERATIVE TECHNIC IN GENERAL SURGERY. Edited by Warren H. Cole, M.D., F.A.C.S. Various contributors. 2 volumes. 1676 pages. Price $30.00. Publisher: Appleton Century Crafts.

This two volume work is an up to date and authoritative presentation on surgical technique. Each division of surgery has been written by an outstanding surgeon who has had particular experience in the subject of his writing. Besides general surgery, the surgical specialties of orthopedics, neuro-surgery, plastic surgery, urology, thoracic surgery; and gynecology have been presented. Ophthalmology and otolaryngology have been omitted. Everyday practical facts are appropriately presented and illustrated.

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*Nieman, I. S.: Prophylactic Value of Sulfathiazole, Arch. Otolaryngol. 47:158 (Feb.) 1948.



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BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

HANDBOOK OF MEDICAL MANAGEMENT: FIRST EDITION: By Milton Chatton, A.B., M.D., Sheldon Margen, A.B., and Henry D. Brainerd, A.B., M.D., University Medical Publishers. 476 pages. $3.00.

HUMAN GROWTH: A simple and straightforward book for young people, their parents and teachers telling how life begins and how boys and girls grow up: By Lester F. Beck, Ph.D., with the assistance of Margie Robinson, M.A. Harcourt, Brace and Company, New York; 124 pages; $2.00.

A TWENTIETH CENTURY PHYSICIAN, the reminiscences of Sir Arthur Hurst, D.M., F.R.C.P., with a foreword by Professor John A. Ryle, M.D., F.R.C.P., The Williams & Wilkins Company, Baltimore. 200 pages. $3.50.

DISEASES OF WOMEN, By Ten Teachers, under the direction of Clifford White, M.D., B.S. (Lond.), F.R.C.P. (Lond.), F.R.C.S.(Eng.), F.R.C.O.G., edited by Clifford White, Frank Cook, Sir William Gilliatt; Eighth Edition: The Williams & Wilkins Company, 1949. 461 pages. $5.25.

PHYSIOLOGY OF THE NERVOUS SYSTEM by John Farquhar Fulton, O.B.E., M.D., D.Sc., LL.D., third edition, revised. Oxford University Press, New York. 667 pages. $10.00.

PHYSIOLOGY OF HEAT REGULATION AND THE SCIENCE OF CLOTHING, prepared at the request of the Division of Medical Sciences, National Research Council. Edited by L. H. Newburgh, M.D., 457 pp. with 78 figs. and 38 tables: Philadelphia and London: W. B. Saunders Company, 1949. 457 pages. $7.50.

ESSENTIALS OF OBSTETRICAL AND GYNECOLOGICAL PATHOLOGY, by Robert L. Faulkner, M.D., F.A.C.S. and Marion Douglass, M.D., with 300 illustrations, including 3 color plates; Second Edition: The C. B. Mosby Company, St. Louis, 1949. 357 pages. $8.75.

HUMAN SEX ANATOMY, by Robert Latou Dickinson, M.D., F.A.C.S., Second Edition; The Williams and Wilkins Company, Baltimore, 1949. 145 pages. $10.00.

"It happened then, as it does to physicians in the cure of consumption, which in its commencement is easy to cure and difficult to understand, but when it has neither been discovered in due time, nor treated upon a proper principle, it becomes easy to understand and difficult to cure."—Machiavelli. Quoted by David W. Zacks, M.D. in Photoradiography in Search of Tuberc., 1949.



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TREAT BLOOD CLOT IN BRAIN BY BLOCKING NERVE PATHWAY

Doctors have devised a promising treatment for a clot in a vessel of the brain, according to a report in the Jan. 7 Journal of the American Medical Association.

Until recently treatment of the condition, acute cerebral thrombosis and embolism, was confined to general measures such as administering intravenous fluid or giving whisky.

The new technique, known as stellate ganglion block, is reported by Drs. Edwin W. Amyes and Seymour M. Perry of the College of Medical Evangelists and University of Southern California School of Medicine, Los Angeles.

It involves blocking certain nerve pathways to vessels which supply the brain. This is done by injecting procaine hydrochloride, a pain-killing drug, in nerve pathways at the back of the neck. The procedure tends to increase the blood supply to the part of the brain that has been affected by the clot.

Of the 44 patients treated, 28 showed improvement in 15 minutes to an hour after the first injection was given. The doctors noted increased alertness, greater ability to move, improved speech and better comprehension.

Improvements occurred in nine of 10 cases who received the treatment in the first six hours after the onset of symptoms, the doctors say.

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Step by step—inch by inch—the starry-eyed dreamers and planners in our midst go on and on—planning and planning more control of our business machine—without which this nation would swiftly lose its power and its greatness.

Step by step—the burden of taxes grows heavier—stifling business growth and progress and undermining our capacity to create jobs.

More and more, restriction follows restriction. More and more, political management of our lives—our total lives—makes a farce of democracy—the last genuine democracy on earth.

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That is the same bag of political tricks that has finally made the courageous, fighting people of England victims of a busted economy. Victims—finally—of political management of business.

Under political management last year in England, civil aviation lost a hundred million dollars; coal lost a hundred and eight million dollars; railroads lost an estimated hundred million dollars.

And who pays the bill? The people, of course, in taxes that kill all initiative—all desire even to work for more than the bare necessities of life.

A 40 dollar a week worker in England works twelve weeks out of the year to pay his taxes.

Austerity—they call it. The other word for it is starvation.

And what is the prospect of relief? None—as long as business remains under control of politicians who know nothing of business operation and management.

This is Socialism in England—in action! This is political management in action! Management that has driven prices up and the standard of living down, turned profits into losses, lowered production, reduced the quality of goods and services. Management that will finally run the total lives of people at a loss—a loss of pride, of dignity, of freedom, of all that we hold sacred.

In England—it may be too late. For once a nation gives up its freedom; submits to those who seek power for power's sake—there is small chance of escape.

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life—stripped of the freedoms you have known—it will profit you well to watch out for this thing called Socialism—because, brother—you don't know the half of it.—*Jackson Co. Med. Soc. Wkly Bul., November 26,* 1949.

In the entire United States about 270,000 mental patients are coming back into the community each year. The spread of the disease from those who may have contracted tuberculosis while in mental hospitals therefore becomes a community problem which we cannot afford to ignore. Pub. Health Rep., Jan. 7, 1949.

The skills required in the modern treatment of pulmonary tuberculosis are many and varied. The frequent association of tuberculous and nontuberculous complications adds further to the need for practically all medical and surgical specialty services, not excluding research facilities. The closest possible association and interchange of information and ideas between the tuberculosis and general hospitals is for these reasons evidently desirable. Particularly is it desirable for the teaching hospitals, which are the principal centers of clinical research, to maintain active contact with tuberculosis institutions, and even to provide a quota of beds for the interchange of patients. Carl Muschenheim, M.D., Am. Rev. Tuberc., July, 1949.

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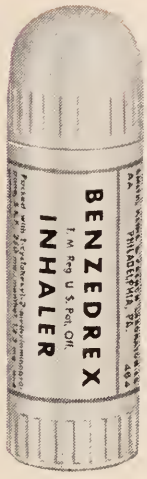
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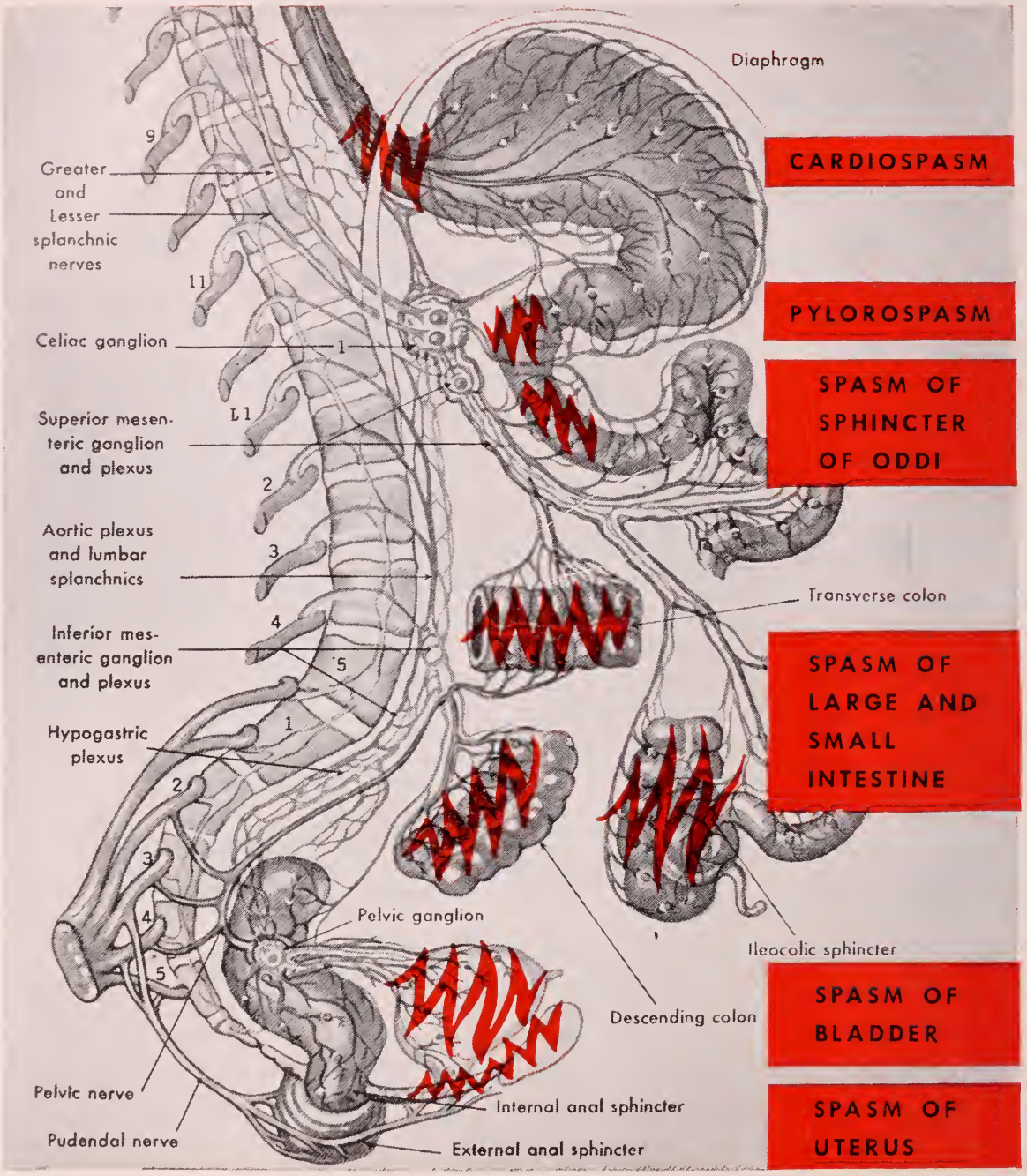
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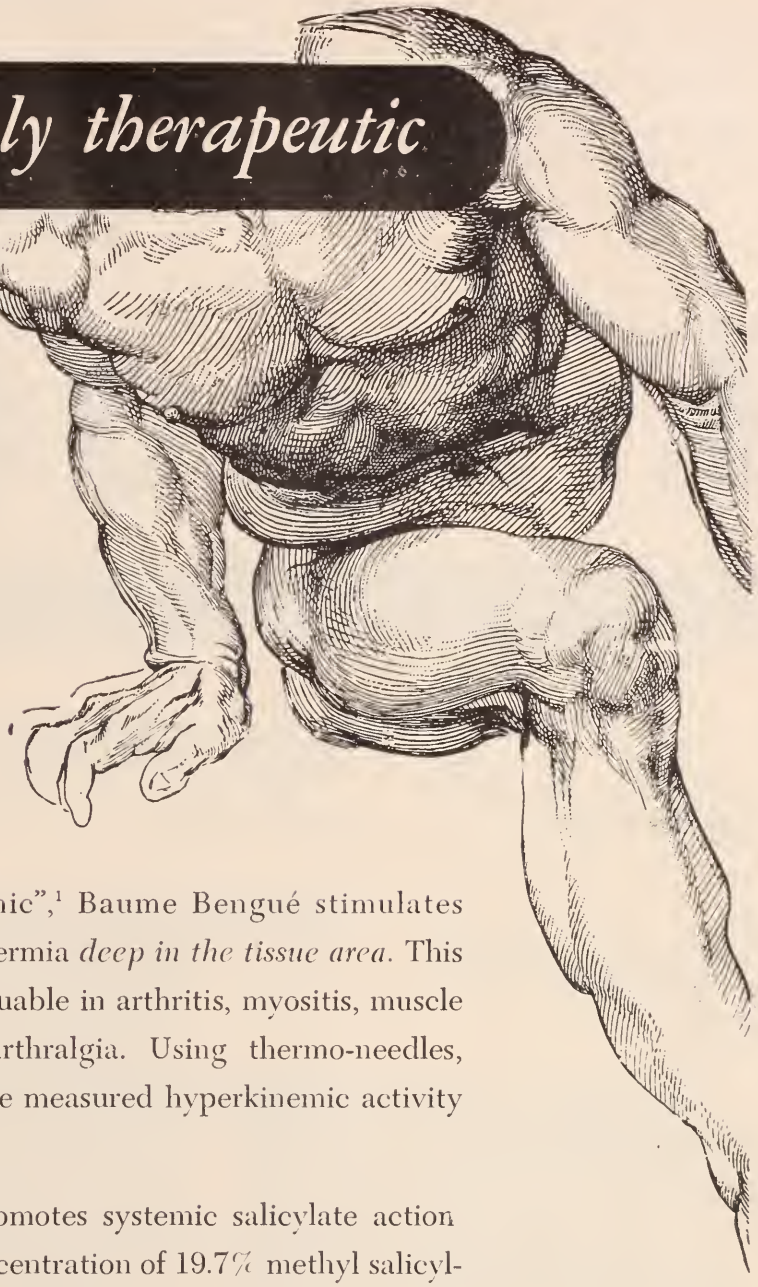


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1. Lange, K., and Weiner, D.: J. Invest. Dermat. 12:263 (May) 1949.

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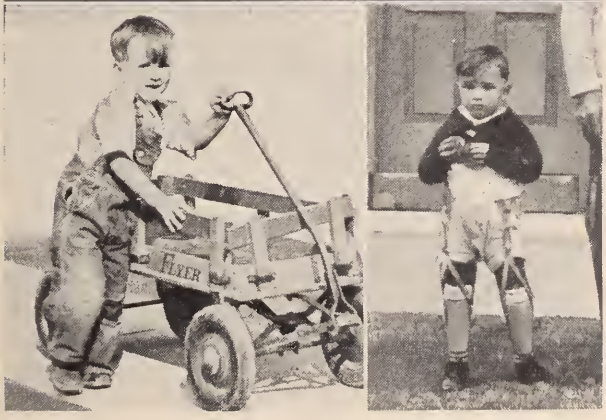
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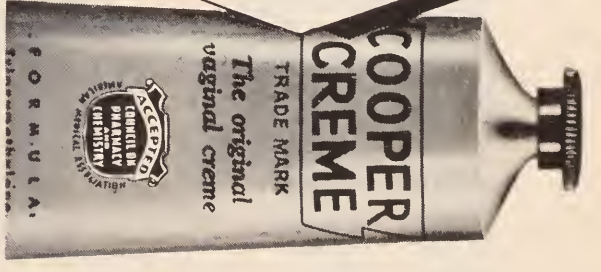


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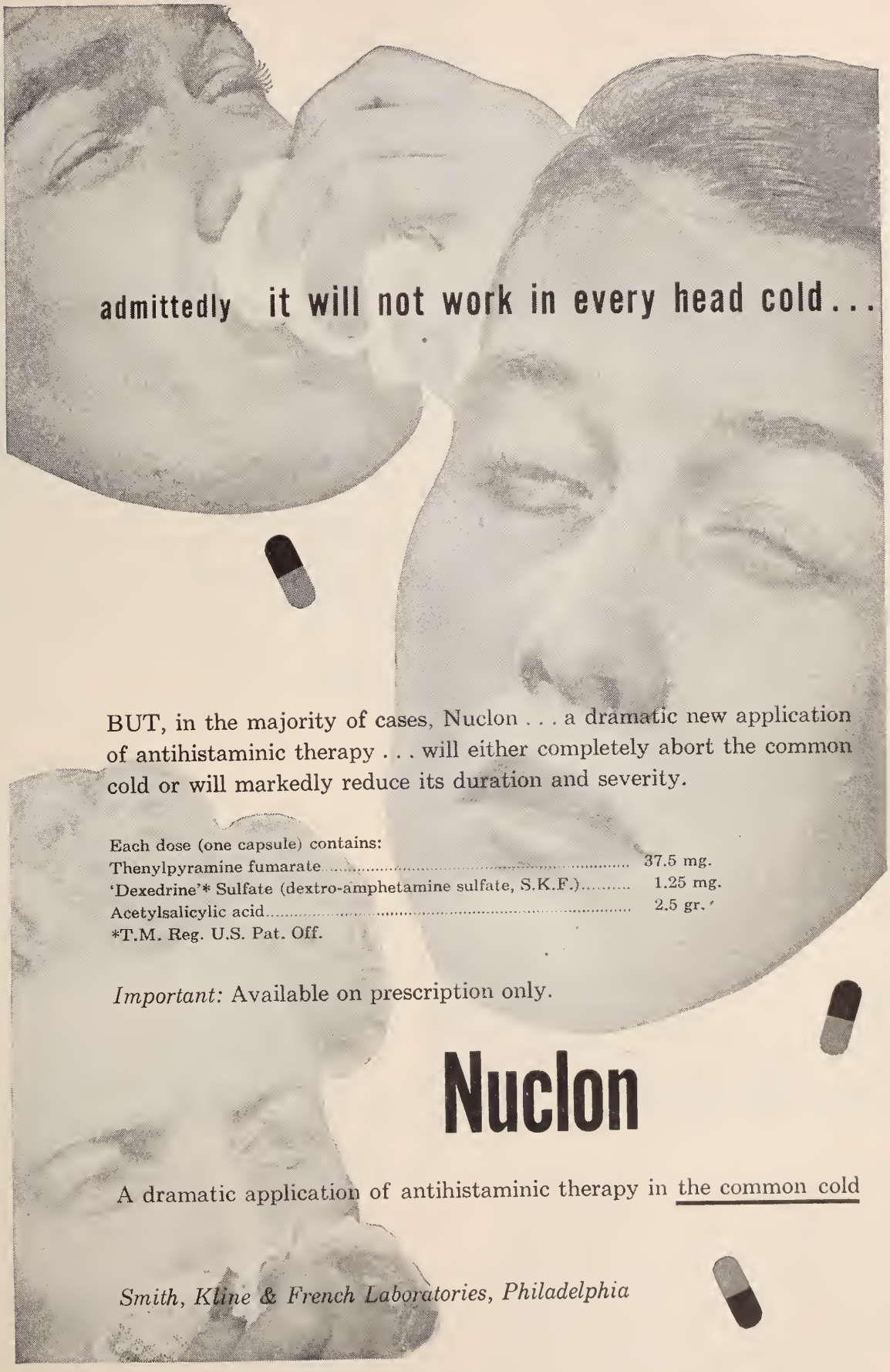
for the child or adult patient—a truly delicious liquid penicillin—easy to give, easy to take, often obviates injections, assures a ready adherence to dosage schedules.

DROP-CILLIN—in 9 cc. "drop-dosage" bottles containing 600,000 units of penicillin. Solution is pink in color. Accompanying calibrated dropper, filled to mark, delivers approximately 20 drops (0.75 cc.) containing 50,000 units of penicillin.*

DRAM-CILLIN—in 60 cc. "teaspoonful-dosage" bottles containing 1,200,000 units of penicillin. Solution is ruby-red in color. Teaspoonful (approximately 5 cc.) provides 100,000 units of penicillin.*

*(buffered penicillin G potassium)

White LABORATORIES, INC., PHARMACEUTICAL MANUFACTURERS, NEWARK 7, N. J.


admittedly it will not work in every head cold . . .
BUT, in the majority of cases, Nuclon . . . a dramatic new application of antihistaminic therapy . . . will either completely abort the common cold or will markedly reduce its duration and severity.
Each dose (one capsule) contains:
Thenylpyramine fumarate 37.5 mg.
'Dexedrine'* Sulfate (dextro-amphetamine sulfate, S.K.F.) 1.25 mg.
Acetylsalicylic acid 2.5 gr.
*T.M. Reg. U.S. Pat. Off.
Important: Available on prescription only.
Nuclon
A dramatic application of antihistaminic therapy in the common cold
Smith, Kline & French Laboratories, Philadelphia

TODAY'S WORD FOR SUPERIOR SPASMOLYSIS





For relief of smooth muscle spasm, authoritative clinical data[1,2,3,4,5] attest the high efficacy of Donnatal 'Robins'—the spasmolytic employing *natural belladonna alkaloids* in precise, optimal ratios, together with a minimum phenobarbital content. Indeed, these facts are well established: (1) that Donnatal affords all the advantages of the natural belladonna alkaloids – yet is significantly non-toxic; (2) that it provides frequently required sedation – yet is entirely non-narcotic; (3) that it has marked pharmacologic potency – yet costs less; and (4) that its flexibility of dosage form – tablet, capsule and elixir – permits convenient, easy administration to patients of *all* ages. These facts make this product of Robins' research one of the safest and most dependable visceral spasmolytics available today.

FORMULA: Each tablet or capsule, and each 5 cc. (1 teaspoonful) of elixir contains:

Hyoscyamine Sulfate	0.1037 mg.
Atropine Sulfate	0.0194 mg.
Hyoscine Hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

DOSAGE: *Tablets or capsules:* 1 to 2, three or more times daily (up to 9 tablets or capsules may be given within 24 hours without toxic effects).

ELIXIR: Infants: ½ teaspoonful two or three times daily as necessary. Children: one teaspoonful two or three times daily as needed. Adults: one or two teaspoonfuls three or four times daily.

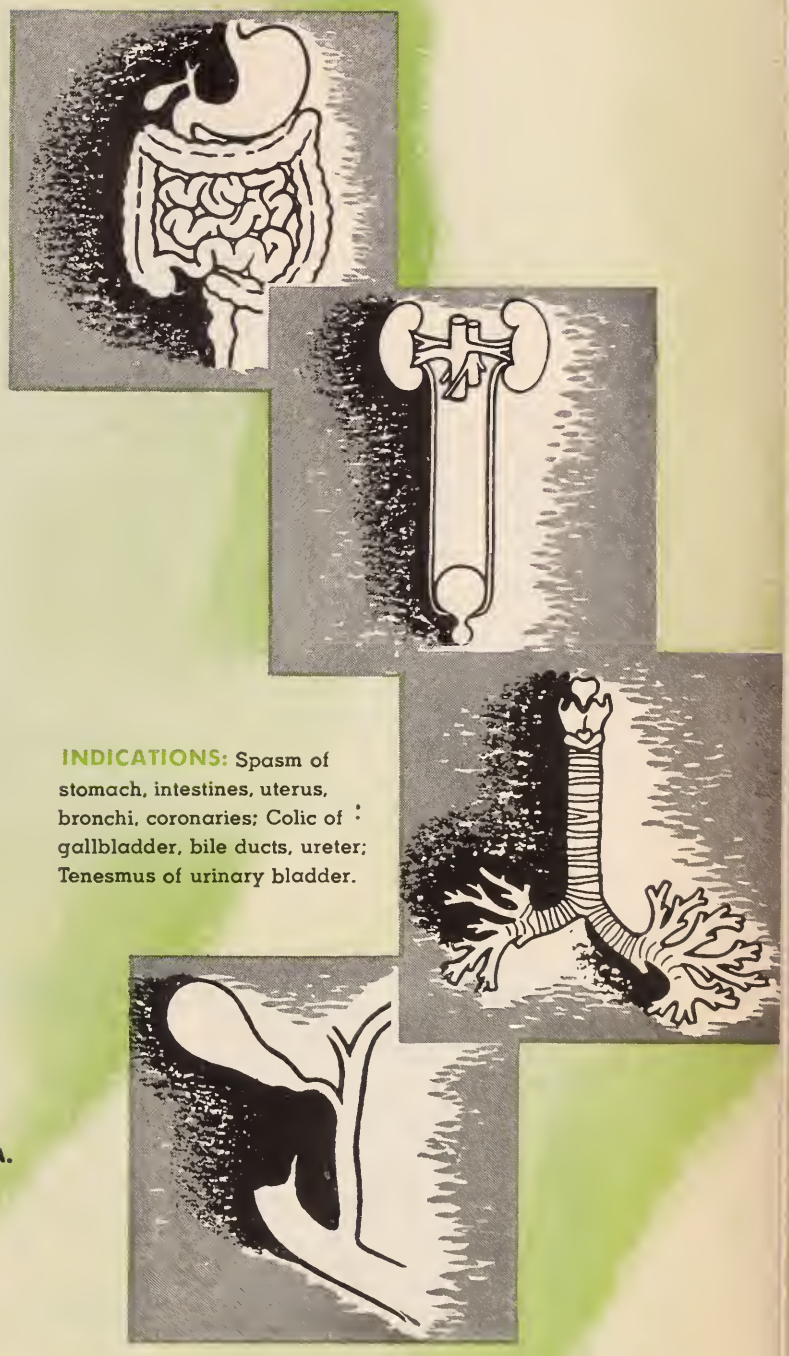
AVAILABLE: Donnatal Tablets and Capsules in bottles of 100 and 500. Elixir in pints and gallons.

REFERENCES:

1. Kilstein, R.I.: Rev. Gastroenterol., 14:171, 1947.
2. Lee, L. W.: Neb. State Med. J., 34:59, 1949.
3. Morrissey, J. H.: J. Urol., 57:635, 1947.
4. Ricci, J. V.: Contributions from Dept. of Gynecology, City Hospital, New York, 1946, New York Medical College, New York, 1947.
5. Stephens, G. K.: J. Okla. State Med. Assn., 42:246, 1949.

A. H. ROBINS CO., INC. • **RICHMOND 20, VA.**

Ethical Pharmaceuticals of Merit since 1878



INDICATIONS: Spasm of stomach, intestines, uterus, bronchi, coronaries; Colic of gallbladder, bile ducts, ureter; Tenesmus of urinary bladder.

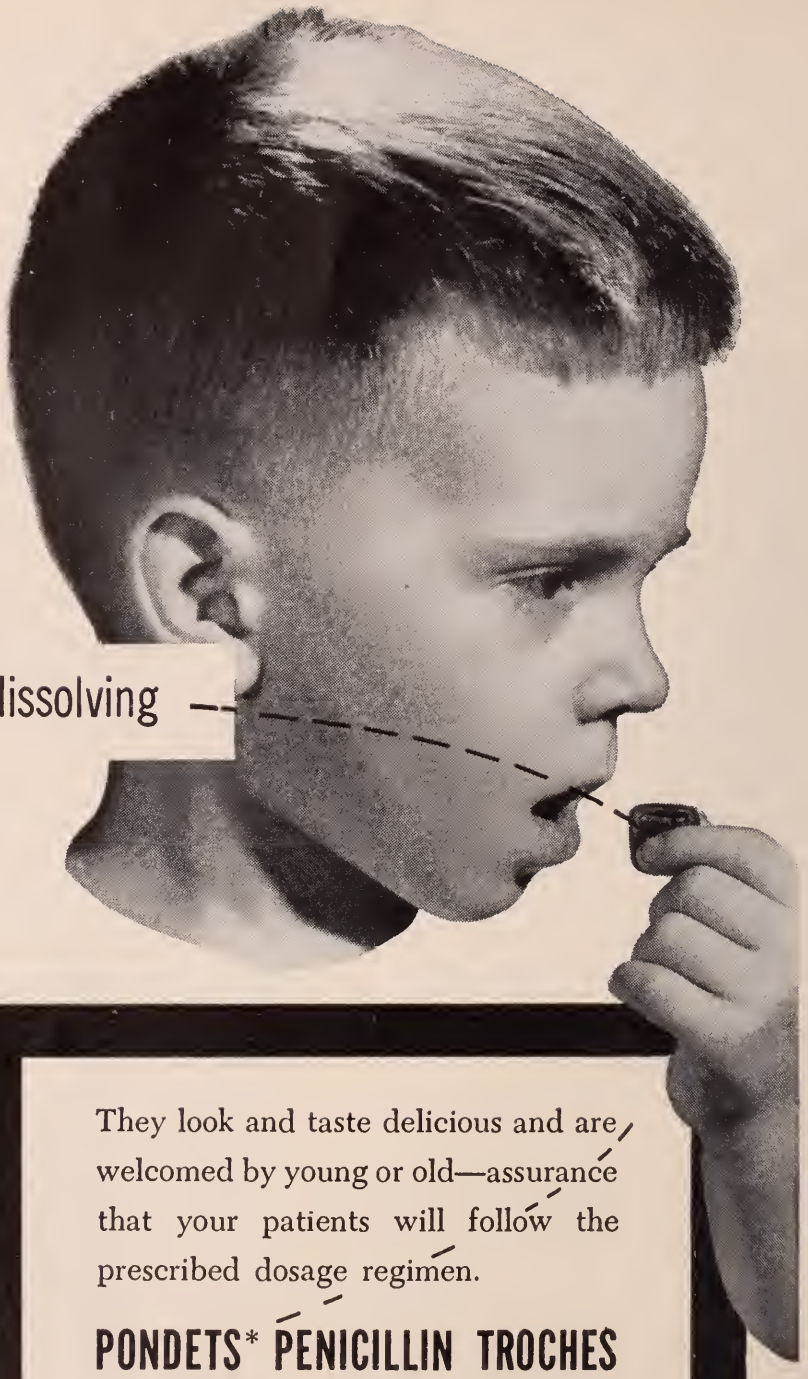


For dependable spasmolysis,
with natural belladonna alkaloi

℞ Donnatal

Robins

20,000 units of penicillin in a slowly-dissolving hard candy base



One Pondet provides high local penicillin levels lasting a half-hour

They look and taste delicious and are welcomed by young or old—assurance that your patients will follow the prescribed dosage regimen.

PONDETS* PENICILLIN TROCHES

For local treatment and prophylaxis of oral infections caused by penicillin-sensitive organisms.

*Trade Mark

Wyeth Incorporated, Philadelphia 3, Pa. Wyeth®



to feed the flame of youth... or bank the embers of age

In geriatrics or pediatrics, indeed, in every field of medical practice, protein therapy is of fundamental importance; and for most patients the safest, most practical and most effective regimen is whole protein, by mouth.

DELCOS granules, composed of exceptionally palatable, whole proteins of highest biologic value (*casein* and *lactalbumin*) protected from wasteful use as energy by carbohydrate, 30%, are well adapted for protein therapy in every age group. Supplied in 1-lb. and 5-lb. jars. Sharp & Dohme, Philadelphia 1, Pa.

Indication: Protein replacement in surgery, obstetrics, geriatrics, pediatrics, and internal medicine. Nutritional supplement in treatment of burns, fractures, hemorrhage, anemia, febrile and wasting illnesses, and other conditions.

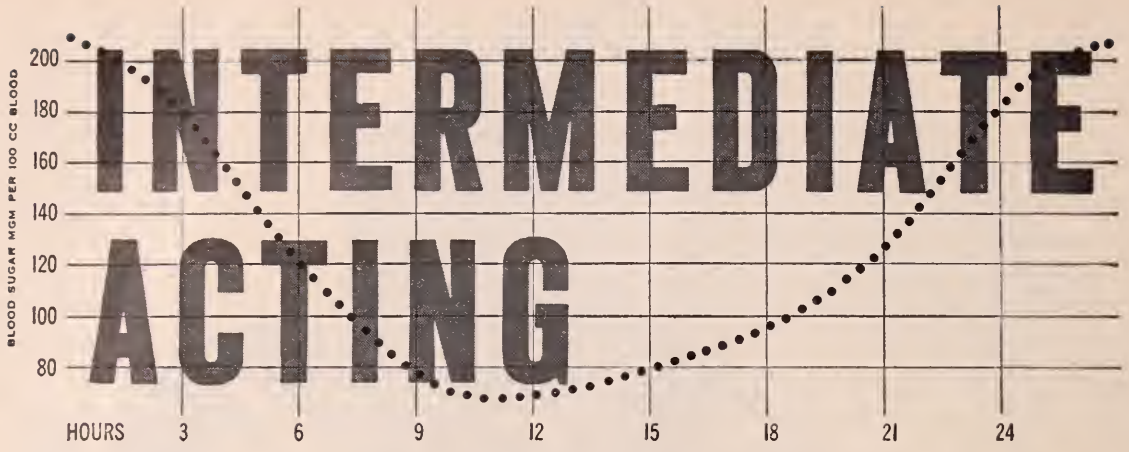
Comment: "All evidence favors the ingestion of whole protein . . . If a patient has no disorder of the gastrointestinal tract that prevents ingestion and utilization of food, it is usually possible to administer more protein and calories by mouth than can be given solely by parenteral means . . . No justification can be found for oral administration of protein hydrolysates." *Peters, J. P.: American Journal of Medicine, 5:100, 1948.*

Delcos®

Protein-Carbohydrate granules

SHARP & DOHME

SHARP & DOHME



INTERMEDIATE ACTING

GLOBIN INSULIN

'B.W.& CO.'

...was developed to fill the "need for an insulin with activity intermediate between that of regular insulin and that of protamine zinc insulin."[1]

IN 1939, Reiner, Searle and Lang described a new "intermediate acting" insulin.

IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B.W. & Co.'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B.W. & Co.'—or with a 2:1 mixture of regular insulin: protamine zinc insulin. *Ready-to-use* Globin Insulin 'B.W. & Co.' provides the desired intermediate action without preliminary mixing in vial or syringe.

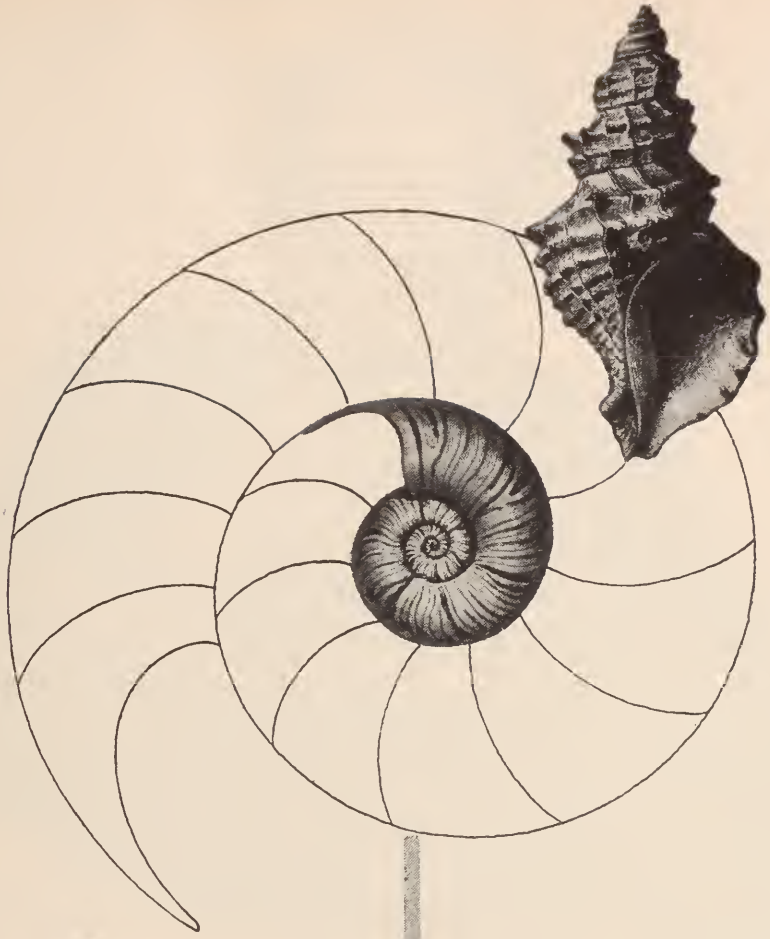
In 10 cc. vials, U-40 and U-80.



'B.W.& CO.'—a mark to remember

1. Rohr, J.H., and Colwell, A.R.: Arch. Int. Med. 82:54, 1948.
2. ibid Proc. Am. Diabetes Assn. 8:37, 1948.

BURROUGHS WELLCOME & CO. (U.S.A.) INC. Tuckahoe 7, New York



Protection...

Just as the shell of the nautilus protects it against environmental injury, so does

Gelusil* a combination of an especially prepared, nonreactive aluminum hydroxide gel and magnesium trisilicate, protect the inflamed or ulcerated areas of the gastric mucosa against injury by the acid gastric juice. Gelusil* is a pleasant-tasting preparation . . . an effective antacid adsorbent.

Gelusil* provides rapid and sustained relief of gastric hyperacidity and is particularly effective as an adjuvant in the medical management of gastric or duodenal ulcer.

Gelusil* is available as a pleasant-tasting liquid or tablet.

Liquid—bottles of 6 and 12 fluidounces.

Tablets—individually wrapped in cellophane—boxes of 50 and 100 tablets. Also bottles of 1,000.

Gelusil* 'Warner'

liquid and tablets

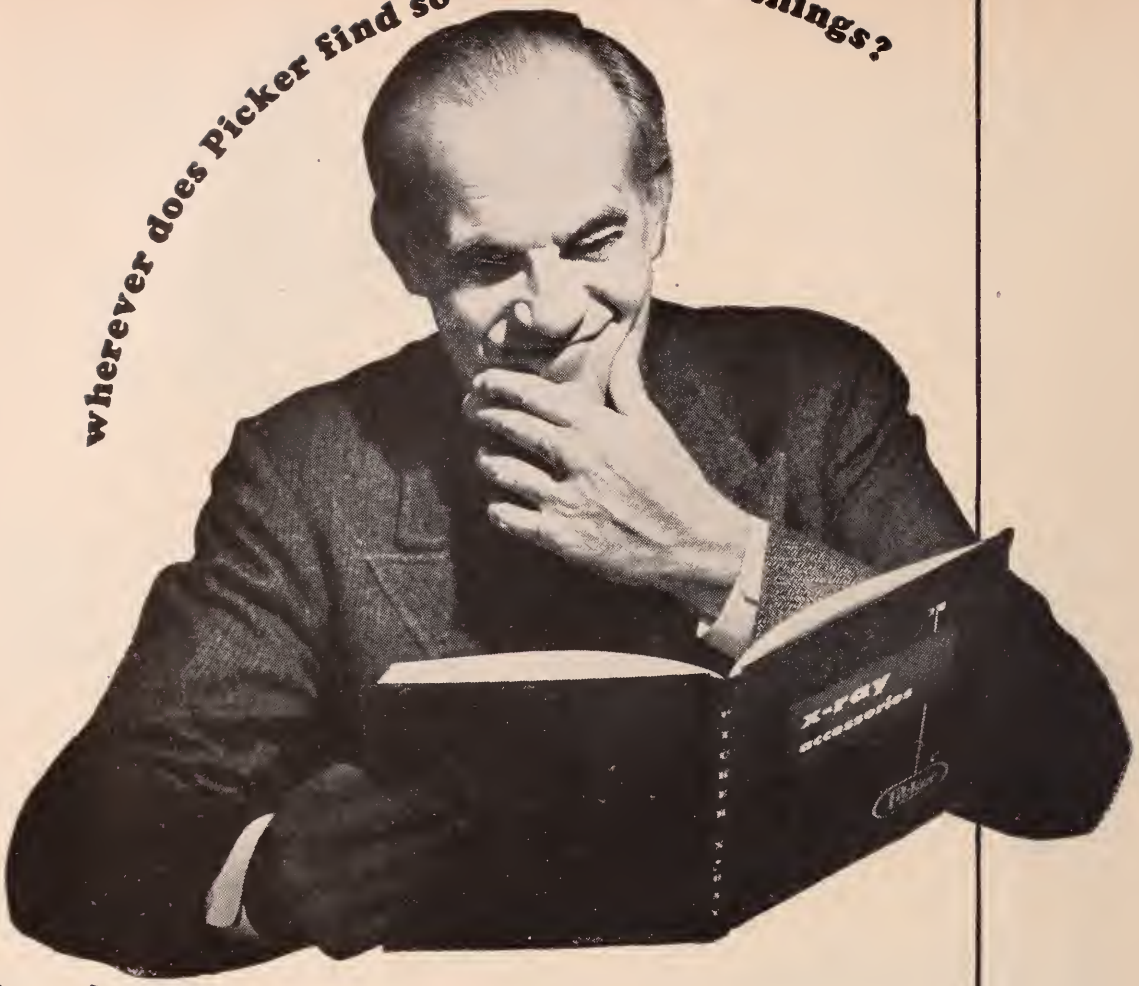


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William R. Warner & Co., Inc.

New York St. Louis

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Fourteenth edition of a book which, for almost forty years, has been esteemed as the *standard reference* for accessories used in radiography, fluoroscopy, and radiation therapy. Probably the most complete source-book for x-ray accessories extant, it embraces not only Picker-made products, but a host of others gathered from all over the world, and offered under the Picker guarantee. Your local Picker representative will be around soon with your copy: or we'll be glad to send one on request (use your letterhead, please).

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all you expect . . . and *more*

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"Nowhere in medicine are more dramatic therapeutic effects obtained than those which follow estrogen therapy in the girl who has failed to develop sexually. A daily dose of 2.5 to 3.75 mg. of 'Premarin' given in a cyclic fashion for several months may bring about striking adolescent changes in these individuals."*

Hamblen, E. C.: Some Aspects of Sex Endocrinology in General Practice, North Carolina M. J. 7:533 (Oct.) 1946.



"PREMARIN"®

Estrogenic Substances (water-soluble) also known as Conjugated Estrogens (equine).

"Premarin"—a naturally conjugated estrogen—long a choice of physicians treating the climacteric—has been earning further clinical acclaim as replacement therapy in hypogenitalism.

In the treatment of hypogenitalism, "Premarin" supplies the estrogenic factors that are missing, and thus tends to eliminate the manifestation of the hypo-ovarian state. The aim of therapy is to develop the reproductive and accessory sex organs to a state compatible with normal function.

Four potencies of "Premarin" permit flexibility of dosages: 2.5 mg., 1.25 mg., 0.625 mg., and 0.3 mg. tablets; also in liquid form, 0.625 mg. in each 4 cc. (1 teaspoonful).

While sodium estrone sulfate is the principal estrogen in "Premarin," other equine estrogens...estradiol, equilin, equilenin, hippulin...are probably also present in varying amounts as water-soluble conjugates.



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22 East 40th Street, New York 16, New York

5005

open
the nasal passages



Swollen nasal mucous membranes . . . lacrimation . . . nasal discharge—the most acutely annoying manifestations of upper respiratory tract allergy or infection—respond quickly to the vasoconstrictive action of

neo-synephrine®
HYDROCHLORIDE

BRAND OF PHENYLEPHRINE HYDROCHLORIDE

decongestive for allergic rhinitis, colds, sinusitis

neo-synephrine is

prompt and prolonged in its decongestive action
effective on repeated application
virtually nonirritating
nonstimulating to central nervous system

Supplied in ¼% solution plain and aromatic, 1 oz. bottles.
Also 1% solution (when greater concentration is required), 1 oz. bottles, and ½% water soluble jelly, ⅝ oz.

Winthrop-Stearns INC.
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NEO-SYNEPHRINE, TRADEMARK REG. U. S. & CANADA

NEW... for your anemia patients



For nutritional macrocytic anemias

DODEX (With Oral Activator) offers your patients for the first time really effective *oral* vitamin B_{12} therapy. Each tablet contains 2 micrograms of B_{12} and 200 mg. of a special activator—natural pyloric substance. Bottles of 100 and 1000 tablets.



For pernicious anemia

DODEX INJECTABLE is the treatment of choice for your patients with uncomplicated pernicious anemia or pernicious anemia with neurological involvement. Each 1-cc ampul contains 15 micrograms of crystalline vitamin B_{12}. Boxes of 6 ampuls.



For Hypochromic anemias

STOLIMIN is the ideal combination for your patients with iron-deficiency anemias or the anemias of convalescence and blood loss. Each tablet contains liver and B_{12}, activated by natural pyloric substance, plus a liberal amount of iron. Bottles of 100 and 1000 tablets.

Literature, containing dosage schedules and indications, for each of these new anti-anemia preparations is available to physicians upon request. Trial supplies of Dodex and Stolimin tablets are also available to physicians.

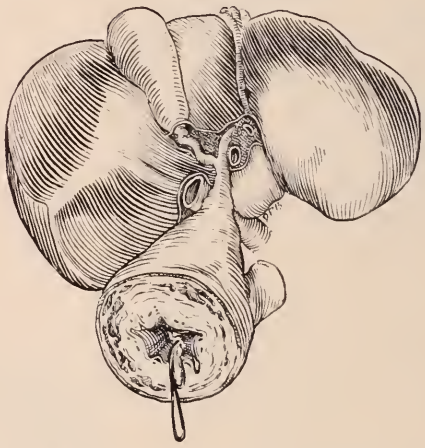
Trademarks—Dodex and Stolimin

ORGANON INC. • ORANGE, NEW JERSEY

Physiologic

IN GALLBLADDER MANAGEMENT





NUBILIC represents the modern trend in the management of inflamed and congested gallbladder and bile ducts.

NUBILIC contains dehydrocholic acid, an efficient hydrocholeretic agent which thins the liver bile and flushes the biliary passages.

NUBILIC contains belladonna, which encourages free drainage and relaxes the sphincter of Oddi. This action is further enhanced by the central sedation of phenobarbital.

NUBILIC

Each Nubilic Tablet contains:

Dehydrocholic acid	0.25 Gm. (3¾ gr.)
Phenobarbital	8 mg. (⅛ gr.)
Belladonna	8 mg. (⅛ gr.)

Bottles of 25, 50 and 100 tablets

NUMOTIZINE, Inc.

900 N. Franklin Street • Chicago 10, Illinois, U.S.A.



PROVED

UNDER ACTUAL PRACTICING CONDITIONS

BENZEDREX INHALER

SO MUCH BETTER THAT WE HAVE DISCONTINUED BENZEDRINE* INHALER

Our new BENZEDREX INHALER was tested by rhinologists in controlled studies for more than two years. Reports were unanimously enthusiastic.

Nevertheless, to make absolutely certain that BENZEDREX INHALER was the best volatile vasoconstrictor ever developed we decided to test it with a large segment of the medical profession under actual practicing conditions.

We therefore replaced 'Benzedrine' Inhaler with BENZEDREX INHALER in the entire state of California. Now, after more than a year's use, California physicians tell us that they and their patients find BENZEDREX INHALER the best inhaler they have ever used.

BENZEDREX INHALER has exactly the same agreeable odor as 'Benzedrine' Inhaler, but gives even more effective and prolonged shrinkage, and does NOT produce excitation or wakefulness.

*'Benzedrine' (racemic amphetamine, S.K.F.) and 'Benzedrex' T. M. Reg. U. S. Pat. Off. Each Benzedrex Inhaler is packed with 1-cyclohexyl-2-methylaminopropane, S.K.F., 250 mg.; and aromatics.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

When little patients act MULISH...

Try *Dulcet* Penicillin Tablets—appealing, candy-like cubes that pack the therapeutic potency of 50,000 units of penicillin G potassium (buffered with 0.25 Gm. calcium carbonate). Stable indefinitely, cinnamon-flavored *Dulcet* Tablets possess the same antibiotic action as an equal unitage of penicillin in unflavored tablets. Although designed for easing the administration of oral penicillin to children, *Dulcet* Tablets are preferred by many adults who simply wish to avoid unpleasant tasting medicine. *Dulcet* Penicillin Potassium Buffered Tablets are available at pharmacies everywhere—in bottles of 12. For literature, write to

ABBOTT LABORATORIES,
North Chicago, Illinois.



SPECIFY

DULCET®

PENICILLIN

Potassium Tablets

(BUFFERED)

® MEDICATED SUGAR TABLETS, ABBOTT



Lady out of the Dark

The selective cerebral action of Norodin is useful in dispelling the shadows of mild mental depression. The reported advantages of Norodin over chemically related analeptics include smaller dosages, more prompt and prolonged mental stimulation, and relatively few side effects. Norodin can be used to advantage in achieving the sense of well-being essential to effective patient management in functional and organic disturbances. In obesity, Norodin is useful in reducing the desire for food and counteracting the low spirits associated with the rigors of an enforced diet.

Supplied: 2.5 and 5 mg. tablets in bottles of 100

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

Norodin®

Hydrochloride

brand of methamphetamine hydrochloride

PSYCHOMOTOR STIMULANT AND ANTI-DEPRESSANT

Endo®

Endo Products Inc., Richmond Hill 18, N.Y.

in hypercholesterolemia

safe and effective reduction
of elevated blood cholesterol
with lipotropic therapy

Clinical and experimental observations indicate that lipotropic factors [choline, methionine and inositol] . . . prevent or mitigate the deposition of cholesterol in the vascular walls of rabbits and chickens and seem to exert a decholesterolizing effect on atheromatous deposits in man, chickens and rabbits.

These findings suggest the therapeutic possibilities of lipotropic Methischol in the prevention and possible treatment of atherosclerosis.

methischol®

Suggested daily therapeutic dose of 3 tablespoonsful or 9 capsules contains:

*Choline Dihydrogen Citrate (Choline . . . 1 Gm.)**	*2.5 Gm.*
dl-Methionine	*1.0 Gm.*
Inositol	*0.75 Gm.*
Liver Fractions from	*36.0 Gm. liver*
**present in syrup as 1.15 Gm. choline chloride*	

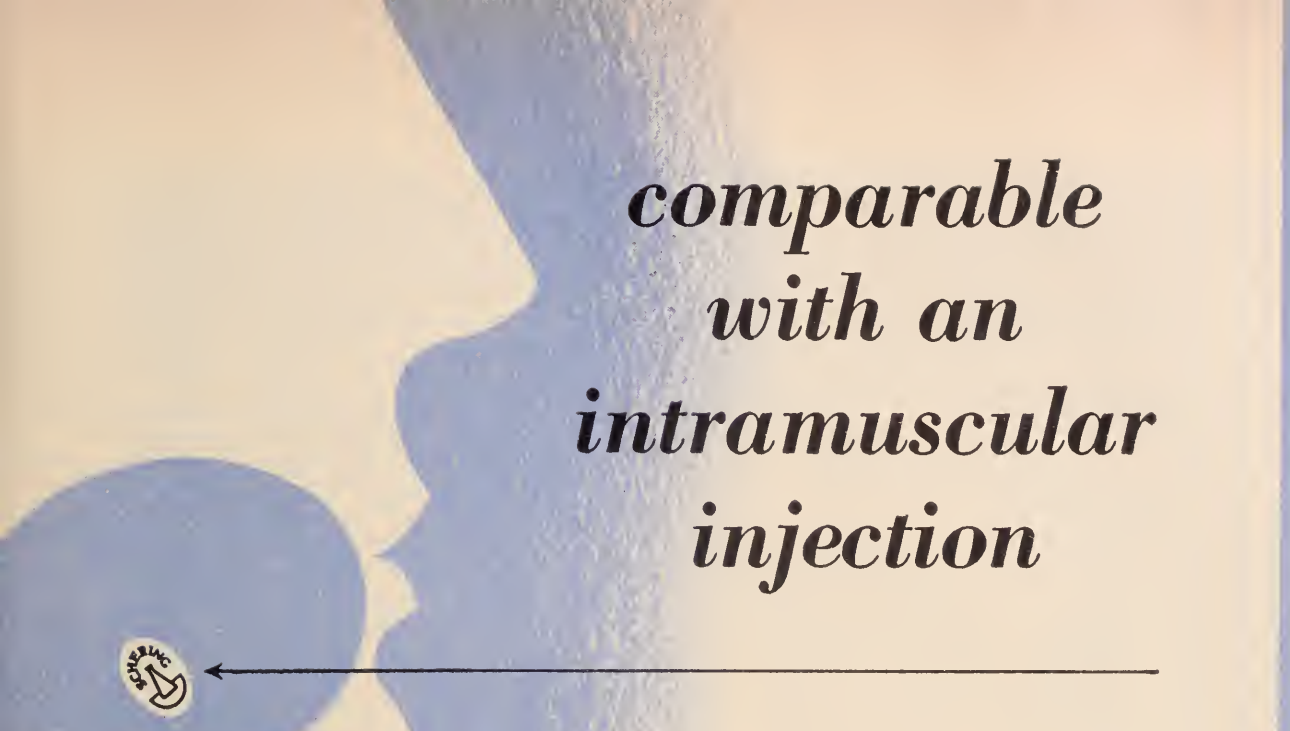
Supplied in bottles of 100, 250, 500 and 1000 capsules, and 16 oz. and one gallon syrup.

methischol

combines major lipotropic agents for specific therapy in reparable liver damage . . . cirrhosis, fat infiltration, functional impairment, toxic hepatitis, infectious hepatitis.

write for samples and literature

u. s. vitamin corporation
casimir funk laboratories, inc. (affiliate)
250 east 43rd st., new york 17, n. y.



comparable with an intramuscular injection

Simple, practical and convenient, Schering's BUCCAL Tablets offer "parenteral hormone therapy by mouth" with little sacrifice of potency. Dissolved in POLYHYDROL* base, a solid solvent, the steroid hormones are absorbed directly from the oral mucosa. Early hepatic inactivation is obviated permitting a clinical effect "by mouth" comparable with that of an intramuscular injection.

BUCCAL TABLETS

Indicated in adrenal insufficiency — **CORTATE®** Buccal Tablets;
in male hypogonadism — **ORETON®** Buccal Tablets;
in the menopausal syndrome — **PROGYNON®** Buccal Tablets;
in habitual abortion — **PROLUTON®** Buccal Tablets.

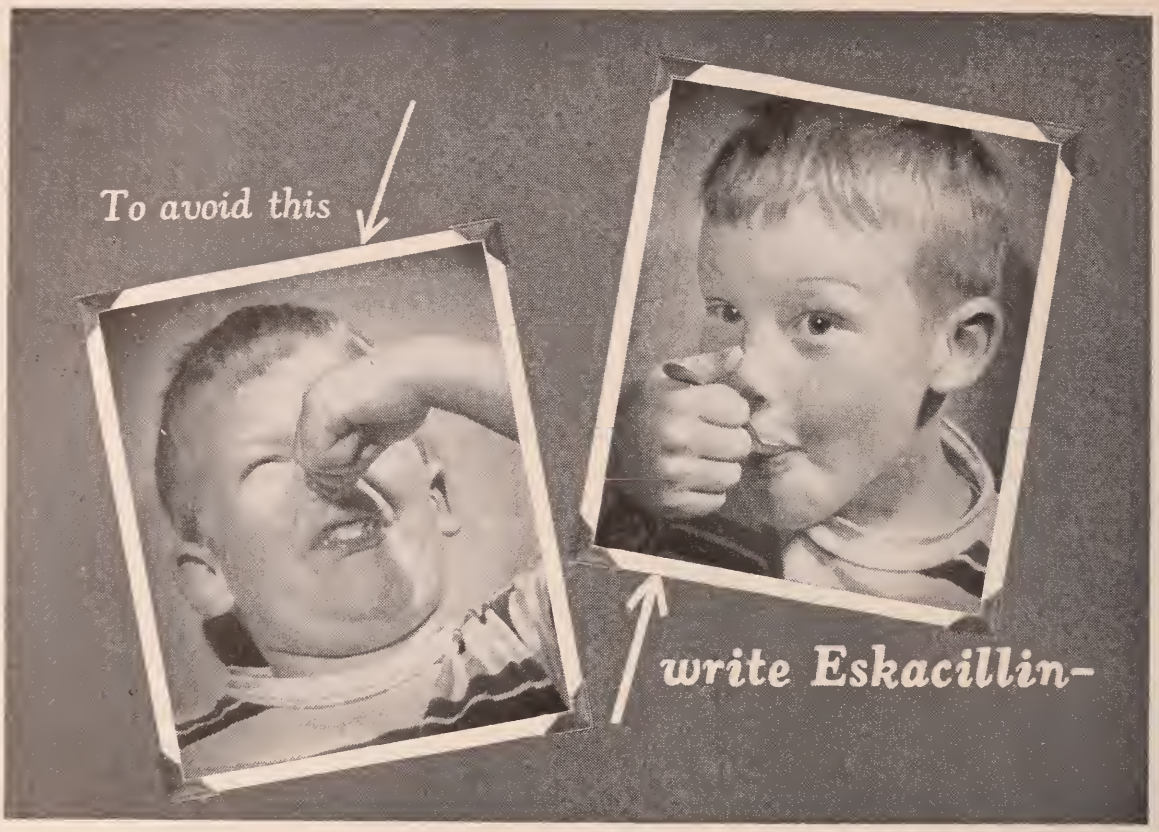
Packaging: CORTATE Buccal Tablets (Desoxycorticosterone Acetate U.S.P.) 2 mg.; ORETON Buccal Tablets (Testosterone Propionate U.S.P.) 2.5 and 5 mg.; PROGYNON Buccal Tablets (Estradiol U.S.P.) 0.125 and 0.25 mg. and PROLUTON Buccal Tablets (Progesterone U.S.P.) 10 mg. — in bottles of 30 and 100.

*T.M.

Schering CORPORATION
BLOOMFIELD, N. J.

BUCCAL TABLETS

SCHERING



The liquid oral penicillin that tastes good!

ESKACILLIN tastes so good that even young children actually like to take it.

But palatability is not ESKACILLIN'S only advantage. Unlike most extemporaneous "fruit syrup" mixtures, ESKACILLIN maintains its potency for 7 full days under refrigeration.

Each teaspoonful of ESKACILLIN contains 50,000 units of crystalline penicillin G—and produces a blood level equivalent to that obtained with a 50,000 unit penicillin tablet. ESKACILLIN is supplied in 2 fl. oz. bottles —containing 600,000 units of penicillin.

Eskacillin *the unusually palatable liquid penicillin for oral use*

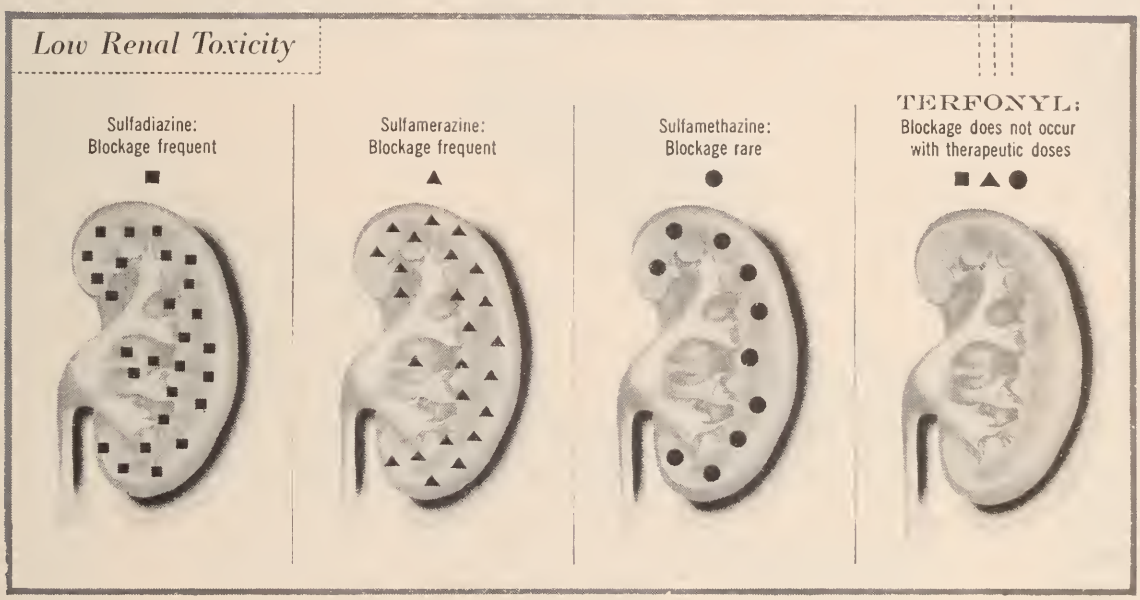
Smith, Kline & French Laboratories, Philadelphia

TERFONYL

Sulfadiazine
Sulfamerazine
Sulfamethazine

FOR SAFE SULFONAMIDE THERAPY

Low Renal Toxicity



With usual doses of Terfonyl the danger of kidney blockage is virtually eliminated. Each of the three components is dissolved in body fluids and excreted by the kidneys *as though it were present alone*. The solubility of Terfonyl is an important safety factor.

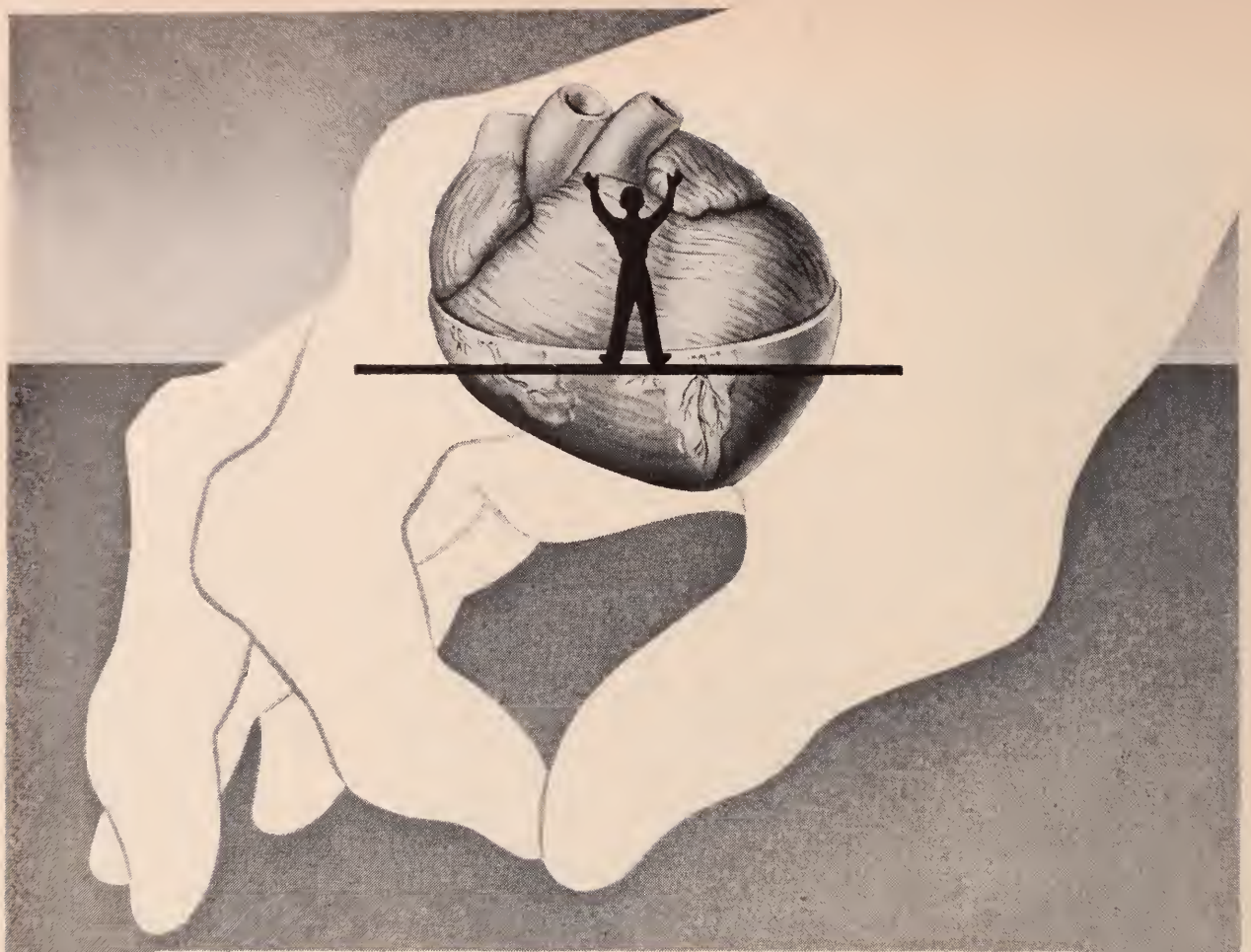
Terfonyl contains equal parts of sulfadiazine, sulfamerazine and sulfamethazine, chosen for their high effectiveness and low toxicity.

Terfonyl Tablets, 0.5 Gm. Bottles of 100 and 1000

Terfonyl Suspension, 0.5 Gm. per 5 cc.
Appetizing raspberry flavor • Pint bottles

SQUIBB MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858

"TERFONYL" IS A TRADE-MARK OF E. R. SQUIBB & SONS



HIGHER NEW ANTIRHEUMATIC THERAPY *SALICYLATE LEVELS* VITAMIN C PROTECTION

Pabasyl Tablets represent a new concept in antirheumatic therapy with the salicylates. Each enteric-coated tablet supplies:

Para-Aminobenzoic Acid* ...0.3 Gm. (5 grains)
Sodium Salicylate 0.3 Gm. (5 grains)
Ascorbic Acid 0.01 Gm. (10 mg.)

Pabasyl Tablets afford rapid relief of pain, fever and inflammation in many rheumatic diseases because they provide:

1. **HIGHER Salicylate Levels** — With simultaneous administration, Paba and salicylates have a reciprocal action that increases salicylate concentration in the blood.

2. **LOWER Salicylate Dosage** — Paba not only boosts the salicylate level attainable with a given salicylate dose but also in itself contributes analgesic and antipyretic actions.

3. **Vitamin C Protection** — Ascorbic acid maintains Vitamin C levels often depleted by fever and salicylate therapy.

Enteric coating allays gastric irritation.

**As the Sodium Salt.*

pabasyl
In Bottles of 100 Tablets.

Dosage adult: 2 tablets three times a day.

I.V.C.®

IVES-CAMERON COMPANY, INC.
22 EAST 40th STREET, NEW YORK 16, N. Y.



in Mixed Bacterial Genitourinary Infections

Aureomycin is now rapidly becoming recognized as a drug of choice in the treatment of mixed bacterial genitourinary infections, particularly those in which *Escherichia coli* and *Aerobacter aerogenes* play a part. Intractability of a genitourinary infection is an especial indication for aureomycin.

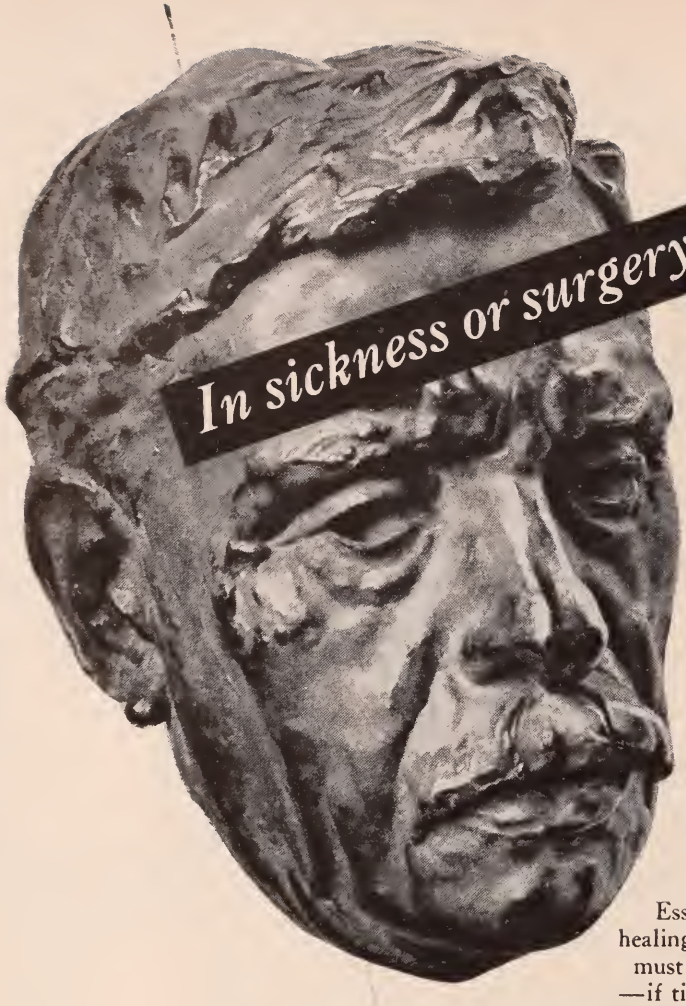
Aureomycin has also been found highly effective for the control of the following infections: African tick-bite fever, acute amebiasis, bacterial and virus-like infections of the eye, bacteroides septicemia, boutonneuse fever, acute brucellosis, Gram-positive infections (including those caused by streptococci, staphylococci, and pneumococci), Gram-negative infections (including those caused by the *coli-aerogenes* group), granuloma inguinale, *H. influenzae* infections, lymphogranuloma venereum, peritonitis, primary atypical pneumonia, psittacosis (parrot fever), Q fever, rickettsialpox, Rocky Mountain spotted fever, subacute bacterial endocarditis resistant to penicillin, tularemia and typhus.

AUREOMYCIN HYDROCHLORIDE LEDERLE

Capsules: Bottles of 25, 50 mg. each capsule. Bottles of 16, 250 mg. each capsule.
Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

AUREO-MYCIN

LEDERLE LABORATORIES DIVISION AMERICAN CYANAMID COMPANY 30 Rockefeller Plaza, New York 20, N. Y.



In sickness or surgery, play safer with . . .

"Saturation Dosage"

of vitamins b *and* c

Depletion of the critical water-soluble B complex and C vitamins occurs so commonly in the presence of physical pathology, as to make a presumption of nutritive impairment[2] almost axiomatic. Essential to normal cell metabolism and wound healing, these poorly-stored, readily-diffusible factors must be replenished — usually by *massive dosage* —if tissue rehabilitation[3] and return to health[4] are to be expedited. • Allbee with C 'Robins' provides this all-important "saturation dosage" in convenient capsule form. It incorporates the important B factors in 2 to 15 times daily requirements, plus 250 mg. of vitamin C — *the highest strength of ascorbic acid available today in a multi-vitamin capsule.* • Its prescription represents a sound contribution toward decisive recovery from disease, or toward pre- and post-operative nutritional support.[1]

A. H. ROBINS CO., INC. · RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878

FORMULA: *Each Allbee with C capsule contains:*

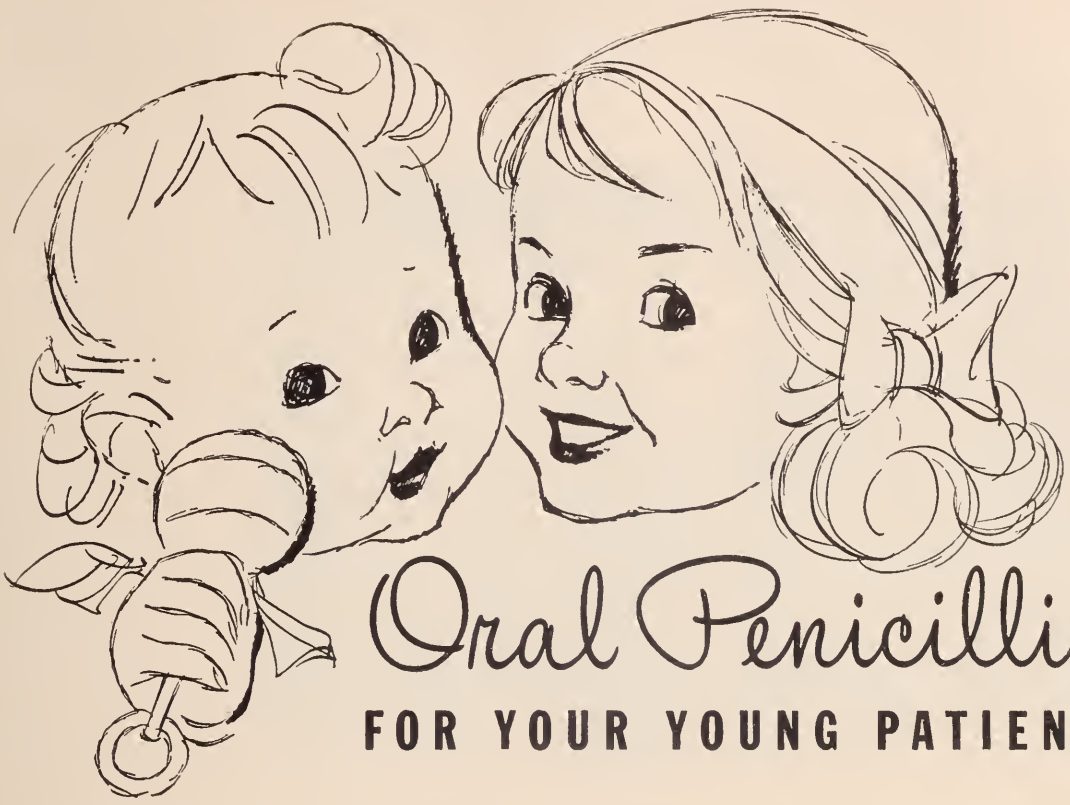
Thiamine hydrochloride (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	50 mg.
Calcium pantothenate	10 mg.
Ascorbic acid (C)	250 mg.

REFERENCES: 1. Coller, F. A. and DeWeese, M. S.: Preoperative and Postoperative Care, J.A.M.A., 141:641, 1949. 2. Jolliffe, N. and Smith, J. J.: Med. Clin. North America, 27:567, 1943. 3. Kruse, H. D.: Proc. Conf. Convalescent Care, New York Acad. Med., 1940.
4. Spies, T. D.: Med. Clin. North America, 27:273, 1943.

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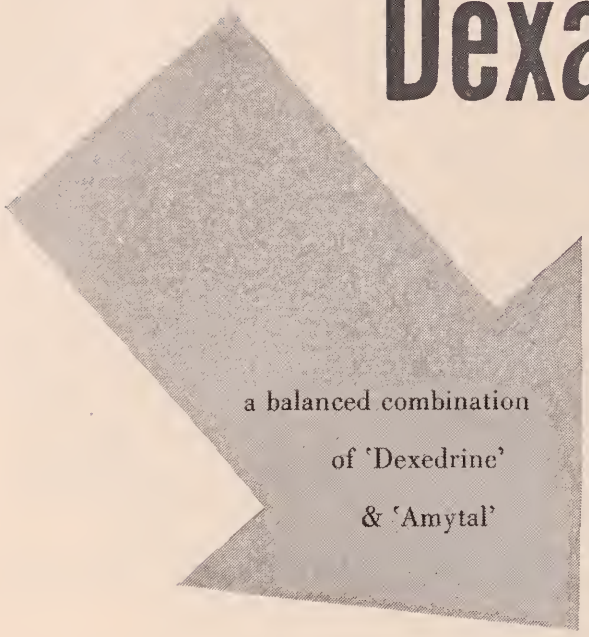
Soltabs crystalline penicillin G potassium are supplied in two potencies—50,000 units and 100,000 units per tablet—in boxes of 24, each tablet sealed in foil.

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The 'Dexedrine', because of its "smooth" and profound antidepressant action, restores mental alertness and optimism and dispels psychogenic fatigue.

The 'Amytal', because of its calming action, relieves nervous tension, anxiety and agitation.

Widely useful in everyday practice, 'Dexamyl' tablets are available on prescription only in bottles of 50. Each tablet contains 'Dexedrine' Sulfate (dextro-amphetamine sulfate, S.K.F.) 5 mg. and 'Amytal' (Amobarbital, Lilly) ½ grain (32 mg.).

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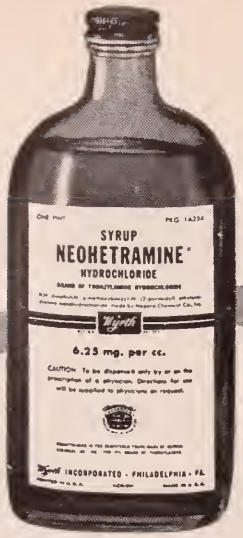
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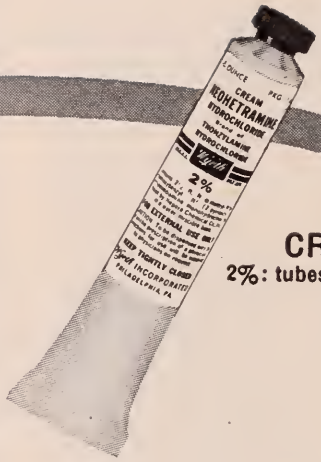
Topical Otologic Chemotherapy

WHITE LABORATORIES, INC. Pharmaceutical Manufacturers, Newark 7, N. J.

1. Holder, H. G., and MacKay, E. M.: Mil. Surg. *90*:509-518 (May) 1942.
2. Holder, H. G., and MacKay, E. M.: Surgery *13*:677-682 (May) 1943.



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1. Schwartz, E.: Annals of Allergy 7:770 (Nov.-Dec.) 1949

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Dust, leather, sweat, and bawling steers add atmosphere to the colorful action of the roundup when it's branding time on the Western range.

Such scenes lend background to the production of certain pharmaceuticals because livestock yield the glands which are processed into important medical preparations. Among these, Iletin (Insulin, Lilly) is pre-eminent.

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The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

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Vol. 97, No. 3 March, 1950

SPRINGFIELD AWAITS YOU

The preliminary program and plans are being presented in this issue of the Illinois Medical Journal to give members of the Society a general idea of the 1950 annual meeting to be held in Springfield May 23, 24, 25. This the first downstate meeting since 1942, and the local committees are working to perfect accommodations and arrangements to avoid any last minute difficulties.

The technical exhibits, the scientific exhibits, the scientific movies and the General Assemblies will be held in the new National Guard Armory. All technical exhibit space was sold during November and a list of the firms who will be with us appears in this issue. Dr. Coye C. Mason, Director of Scientific Exhibits, and his committee, will have outstanding scientific exhibits and a group of excellent scientific movies for all in attendance.

Registration will be set up in the lobby of the Armory, and tickets for the Secretaries Conference on Tuesday night and for the Annual Dinner on Wednesday night will be on sale. Local committee members will be in attendance at the registration desk and a telephone service will be given at a booth in the exhibit hall.

The meeting will honor Dr. Andy Hall, outstanding general practitioner in Illinois, and elected at the Interim Session of the American Medical Association, as outstanding general practitioner in the United States. Never before has an annual meeting been named for or dedicated to any one man, but we hope that the membership of the Illinois State Medical Society will avail itself of the opportunity to pay tribute to the physician who represents all that is fine and honorable in the practice of medicine yesterday, today and tomorrow.

The final program will be printed in the April issue of the Illinois Medical Journal and also in the official program to be distributed to all who register at the meeting.

NATIONAL CONFERENCE ON MEDICAL SERVICE

The twenty-third annual meeting of the National Conference on Medical Service was held at the Palmer House, Chicago, on Sunday, February 5. The attendance was unusually good, with representatives from many states present, and an excellent program had been arranged.

Beginning 23 years ago as the Northwest Regional Conference, and the several early meetings held in St. Paul, Minnesota, for the past 18 years, the meetings have been held at the Palmer House and for this period, as the National Conference on Medical Service. This has been an unusually unique conference, as there are no membership dues, no definite mem-

bership, and all physicians are permitted to register and participate in the deliberations.

The president for the 1950 meeting was John S. Bouslog, Denver, and the Secretary, Robert D. Bernard, Clarion, Iowa. Following the usual custom, Doctor Bernard was elected president for the coming year, and Robert E. Fitzgerald, Milwaukee, was elected as Secretary. Ernest E. Irons, as President of the American Medical Association, gave an interesting address and George F. Lull, General Manager and Secretary, told of the A. M. A.'s Public Educational Program to date.

At the luncheon, Congressman James I. Dolliver of Iowa, talked on personal observations of socialized medicine in England, as he saw it in operation during a recent trip to Great Britain. Warren F. Draper gave a report on the medical program of the United Mine Workers Welfare and Retirement Fund, he being its Executive Medical Director.

Other speakers in addition to the annual address of the president given by Doctor Bouslog, were Philip E. Adams, D.D.S., president of the American Dental Association, Mr. Ray Murphy, Vice President and Actuary of the Equitable Life Assurance Society, Harvey Stone, as a member of the A. M. A. Coordinating Committee on Legislation, and Mr. Allan B. Kline, President of the American Farm Bureau Federation.

Joe S. Lawrence, Director of the A. M. A. Washington office, discussed legislative problems in Washington, Mr. George Brand, President of the American Judicature Society, and an officer of the Chamber of Commerce Executives, likewise gave talks during the conference.

THE TUBERCULOSIS PROBLEM IN 1949

Tuberculosis is a communicable disease which can be prevented, yet it is killing nearly 1,000 Americans a week, 125 persons a day — at the rate of one person every 11 minutes.

Tuberculosis leads all other diseases as a cause of death among young adults from 15 to 34 years of age.

Tuberculosis causes more deaths than any other infectious disease.

Tuberculosis cost more lives than any other disease caused by a bacterium.

Tuberculosis causes one out of every 30 deaths in this country. Of every 12 deaths among Negroes, one is due to tuberculosis.

Although no other disease causes as many deaths as tuberculosis in the age group from 15 to 34, tuberculosis can strike at any age. The median age at which people died of tuberculosis in 1947 was 46.

Approximately 1,000,000 working years are lost by those who die of tuberculosis in a year. An estimated 1,500,000 potential years of life are lost annually by those who die of tuberculosis.

The care of tuberculosis patients in hospitals in one state (New York) last year cost $23,000,000 in public funds.

The cost of the entire tuberculosis control program in the United States is estimated at more than $350,000,000 a year. Included in this amount are expenditures by both public and private health agencies for the care of tuberculosis patients, case finding, public health nursing, health education, rehabilitation, treatment by private physicians, assistance to families where the wage earner has tuberculosis, medical research, and pensions to veterans. The cost of hospital construction is not included, nor are the tremendous costs of lost wages, lowered production, and broken homes.

L. A. P.

ILLINOIS STATE MEDICAL SOCIETY SPECIAL TRAIN TO SAN FRANCISCO

At a meeting of the Council held Sunday, February 5, a plan was approved whereby the Society will sponsor a special train to San Francisco from Chicago, for the 1950 Annual Meeting of the American Medical Association. Full particulars on the schedule, stopovers enroute and costs involved will appear in the April issue of this Journal. An interesting tour is being planned, with stopovers, and on a fine train which will be scheduled over a scenic route.

Keep this in mind, and be ready to obey the call "All Aboard for San Francisco."

MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chmn., Hubert L. Allen, Emmet B. Bay, Edwin F. Baker, Carroll Birch, Thomas C. Browning, Roland R. Cross, James Graham, George Halperin, Edwin S. Hamilton, Ford K. Hick, Edwin F. Hirsch, May McDonald Milligan, Marie Wessels, Walter M. Whitaker, Holland Williamson.



Public Assistance Trends and Costs

Carl K. Schmidt, Jr.,
Executive Secretary, Illinois Public Aid Commission
Chicago

The present financial condition of the public assistance programs in Illinois is of interest to the medical profession, particularly since the total cost has been increasing steadily. In the 1945-47 biennium the total assistance appropriation to the Illinois Public Aid Commission was $191,923,423; in the 1947-49 biennium the appropriation was $234,357,870; and for the biennium which began July 1, 1949 and which will end June 30, 1951, the General Assembly appropriated $265,465,000.

At the present time, that is February 1950, over 342,000 persons are receiving public assistance in Illinois under the four programs of Old Age Pension, Aid to Dependent Children, General Assistance and Blind Assistance. This total represents 4.3 per cent of the Illinois population. However, the range of percentages of recipients to total population varies from 1.3 per cent in Du Page County to over 15 per cent in Pulaski County indicating a wide geographical difference in the intensity of the problem of dependency.

The total cost of the four programs for February, including about $800,000 raised by local governmental units, was approximately eleven and one-half million dollars, over one half of which, 5.8 million, went for Old Age Pension, 2.3 million for Aid to Dependent Children, 3 million for General Assistance and $220,000 for Blind Assistance. Although the size of the problem and its costs are serious in themselves, more important is the trend. Forty-four thousand persons have been added to the assistance rolls since a year ago. Most of these, 33,000, became recipients of General Assistance. The increase in the entire public assistance load and more particularly in General Assistance, is directly traceable to the decline in economic activity throughout the State and nation. The largest single factor affecting changes in the level of the public assistance load is employment and wages.

Since the fall of 1948 more cases were added to the rolls because of loss of employment or reduced earnings than for any other reason. During

the last six months loss of employment and reduced earnings were responsible for the opening of more General Assistance cases than all other reasons combined although illness, desertion and similar factors also contributed. During November 1948 when the current rise in national unemployment began, a total of 274,000 persons were receiving assistance in Illinois. This number has risen to 342,000 in February 1950 representing a gain of 25 per cent. General Assistance, which is exceedingly sensitive to changes in economic conditions, has shown a larger increase than any of the other three programs. Except for a slight reversal in early summer of 1949, the number of families and of persons on General Assistance has been growing steadily since the fall of 1948 and between November of 1948 and February of 1950 showed a gain of 60 per cent in families and 84 per cent in persons.

This compares with an increase of 146 per cent in national unemployment during this period (from 1,831,000 persons in November 1948 to about 4,500,000 in January 1950).

That economic dislocation would contribute to this extent to the increase in the public assistance load appears obvious. National employment has declined since the fall of 1948 while at the same time the labor force has increased and unemployment more than doubled. However, the distribution of the unemployed by weeks of duration is even more significant than their mere number. Nation-wide, the average duration of unemployment was barely seven weeks in November of 1948. In December 1949 this average had jumped to almost 12. In the fall of 1948 persons unemployed for three and a half months or longer numbered 200,000. This number now has risen to 800,000.

Although national unemployment has shown sharp increases and increasing intensity over the period, the situation in Illinois is even worse than that represented by national totals. Illinois unemployment almost tripled from November 1948 to November 1949. Claimants for unemployment insurance more than doubled in a year's time. In the Chicago area where the bulk of the increase in General Assistance has taken place, unemployment has risen from 52,000 in November 1948 to 188,000 in November 1949.

Changes in other economic factors serve to explain further the rise in the public assistance load. The Federal Reserve Board's index of industrial production, measuring the nation's output, catapulted from the post-war high of 195 in October and November 1948 to 166 in October 1949, the lowest in three and one-half years. The seasonally adjusted annual rate of the Gross National Product, the market value of all goods and services produced by the nation's economy, shrank by $14 billion between the fourth quarter of 1948 and the third quarter of 1949, latest period for which data are available. Declines were also experienced in freight traffic movement, personal income, and other economic variables. Meanwhile the cost of living remained relatively high.

Appropriations for public aid for the 1949-51 biennium were based upon the assumption that economic conditions during the next two years would be relatively stable. In July 1949 it seemed obvious that the assumption underlying the appropriations was not yet borne out, as in the first month of the new biennium the Commission allocated funds well in excess of one twenty-fourth of its appropriation. This condition continued in August, and effective with September, reductions of 5 per cent in the Aid to Dependent Children program and 10 per cent in State funds for General Assistance were made. These reductions by no means served to bring expenditures of funds in line with budgeted appropriations. Expenditures over and above the average monthly remaining balance of appropriations continued to increase and in January 1950 the Commission expended $1,300,000 more than the average monthly remaining balance. It was clear that the Commission could not continue spending at the then prevailing rate without serious danger of prematurely exhausting its funds.

As a consequence, effective with February 1950 grants to recipients, the Commission removed from the individual budgets three of the less essential items: recreation and education (for occasional newspapers, small church contributions, carfare, pencils and paper for school children); personal care (haircuts for men and boys, supplies for shaving, salt and soda for teeth, spot remover, mending supplies, sanitary supplies for women); medicine chest needs (cough syrup, laxatives, aspirin, adhesive tape, iodine, disinfectants). Even with these reductions, sizeable deficiency appropriations are in the making.

The situation in which Illinois finds itself is by no means peculiar to Illinois. A drain on public assistance funds in many other states has created critical financial conditions there as well.

Although periodic evaluation of eligibility and need is routine with the Commission's staff, this administrative control was intensified commencing last September when a review of all cases was inaugurated to make certain that all ineligible persons would be removed so that the dwindling public funds would be available for those truly in need. Although cases are determined to be eligible on application, occasionally a later change in income and resources may make them ineligible. A special drive was also inaugurated, in January 1950, to trace fathers of divorced, deserted and separated dependent mothers with children, and to get them to assume their responsibilities. Cases of flagrant misrepresentation are also being sought out and these are being prosecuted. However, although many cases have been removed from the rolls during the review, by far the majority of the cases have been found to be clearly eligible and in need.

County Welfare Services Committees are in process of re-formation under the provisions of the new Public Assistance Code. Such committees serve to bring the policies and administrative procedures of the public aid programs into close relationship with community attitudes.

Although during the war emphasis by the Commission on securing employment was not necessary due to the availability of work, the Commission is presently testing a means of accelerating the placement of employable recipients into employment.

In addition to the reduction in assistance granted and the achievement in efficiency and economy of operation, the Commission has been reviewing policy and has been making every effort to cut corners in this area as well, wherever possible. For example, the medical assistance program is currently under scrutiny because expenditures for medical care constitute a large proportion of total assistance expenses in Old Age Pension, Blind Assistance, and Aid to Dependent Children.

As a first step in reviewing the medical assistance program and in reducing expenditures the Commission provided for constant review of need for hospital care. With the help of attending physicians and County Medical Advisory Committees, it has been possible to reduce total hospital expenditures and the number of persons receiving hospital care. The reduction, however, is relatively small and the major accomplishment is probably that the trend toward increasing expenditures appears to have been stopped.

Further, with the help of the Illinois State Medical Society's Advisory Committee to the Public Aid Commission, reviews have been made of physicians' bills submitted to some county departments of welfare with high total costs for this service. The State Medical Advisory Committee has found that in most instances these high expenditures, when related to physicians' services, were because of high charges for dispensed drugs and numerous visits. The Committee suggested again, as it has many times in the past, that physicians make every effort to dispense or prescribe for recipients the least expensive drug which would adequately treat the patient's condition. The Committee also suggested that when physicians find they are called too frequently by recipients that they ask the assistance of county departments of welfare in planning with the recipient only for essential care.

Despite these cuts in assistance, the Commission has so far made no reductions in amounts allowed for medical care. Some local governmental units have reduced payments for medical care in the General Assistance program in order to make their lowered allocations cover expenditures more adequately. This, however, has been the individual decision of each local governmental authority.

The medical assistance program as operated by the Illinois Public Aid Commission, with the help of a Committee from the Illinois State Medical Society, has provided adequate medical care for recipients of public assistance for a number of years. It is hoped that because of financial difficulty it will not be necessary to curtail services or fees and the help of all physicians is earnestly solicited in keeping current expenditures from increasing so that this will not be necessary.

CORRESPONDENCE



SPECIAL NOTICE ON PREMATURE PROGRAM

Unusual demands on the Illinois Department of Public Health for payment for hospital care of premature infants have almost exhausted the money available for that purpose. For this reason, I am compelled to regretfully inform you that, effective at once, and until further notice, the following policies must obtain:

1. STATE FUNDS WILL NOT BE AUTHORIZED FOR INFANTS WEIGHING MORE THAN FOUR POUNDS. This applies to both birth weight and weight at discharge. Centers may continue to admit infants of higher weights if payment for their care comes from sources other than this Department.

2. APPLICATION FOR CARE IN A PREMATURE CENTER MUST BE MADE WITHIN THE FIRST 24 HOURS FOLLOWING BIRTH, if payment is to be considered by the Illinois Department of Public Health.

3. TO EACH CENTER A DEFINITE MAXIMUM AMOUNT OF MONEY HAS BEEN ALLOTTED FOR THE FIVE MONTHS ENDING JUNE 30, 1950. Commitments beyond that amount must not be made. This will limit strictly the number of State-financed cases in each Center. For this reason, it is most important to submit applications for State aid for only the most needy cases.

The Department will continue to provide ambulance service to Centers for *all* cases without charge. Request for transportation and admission should be made as usual to the Center. The referring party should be in a position to state how the cost of hospital care is to be met, prior to referring infant to Center.

Center Pediatricians will continue to be available as consultants.

I sincerely hope that private funds, hospital insurance and community resources may enable the premature infants in your area to continue to be referred to the Premature Center in accordance with your established pattern.

Please be assured that the above mentioned restrictions result entirely from a current shortage of funds and are not necessarily permanent.

Thank you for your understanding and cooperation.

Roland R. Cross, M.D., Director

CLINICS FOR CRIPPLED CHILDREN LISTED FOR APRIL

Doctor Hebert R. Kobes, director of the University of Illinois Division of Services for Crippled Children has released the April schedule of clinics for physically handicapped children. The Division will conduct 15 general clinics providing diagnostic orthopedic, pediatric, speech and

hearing examinations along with medical social and nursing services. There will be 4 special clinics for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in cooperation with local medical and health organizations, both public and private. Clincians are selected among private physicians who are certified Board members. Any private physician may refer or bring to a convenient clinic any child or children for whom he may want examination or many want to receive consultative services.

The April clinics are:

April 4—Macomb, Marietta Phelps Hospital
April 4—Jacksonville, Passavant Hospital
April 5—Elgin, Sherman Hospital
April 5—Shelbyville, Veterans Center
April 11—Peoria, St. Francis Hospital
April 11—E. St. Louis, Christian Welfare Hospital
April 12—Hinsdale, Hinsdale Sanitarium
April 13—Cairo, Public Health Building
April 13— Springfield, St. John's Hospital
April 13—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County
April 14—Chicago Heights (Rheumatic Fever), St. James Hospital
April 18—Danville, Lake View Hospital
April 19—Aurora, Copley Hospital
April 20—Rockford, St. Anthony's Hospital
April 25—Peoria, St Francis Hospital
April 25—Effingham (Rheumatic Fever), Douglas Township Building
April 26—Springfield (Cerebral Palsy), Memorial Hospital
April 26—Chicago Heights, St. James Hospital
April 27—Normal, Brokaw Hospital
April 28—Chicago Heights (Rheumatic Fever), St. James Hospital

In carrying on its program the Division works cooperatively with local medical societies, hospitals, the Illinois Children's Hospital-School, civic and fraternal clubs, visiting nurse associations, local social and welfare agencies, local chapters of the National Foundation for Infantile Paralysis and other interested groups.

In all cases, the work of the Division is intended to extend and supplement—not supplant—activities of other agencies, either public or private, state or local, carried on in behalf of crippled children.

The Division of Services for Crippled Children is the offical state agency established to provide medical, surgical, corrective and other services and facilities for diagnosis, hospitalization, and after-care for children who are crippled or who are suffering from conditions which may lead to crippling.

WOMAN'S AUXILIARY CONVENTION

The annual convention of the Woman's Auxiliary to the Illinois State Medical Society will be held in Springfield May 23 and 24 at the Leland Hotel.

All doctors' wives are invited to attend. A doctor's wife is most welcome whether she is a member of the Auxiliary or not.

Plans are in the formative stage at this time but from all indications this will be one of the biggest conventions of the Auxiliary since it was organized.

The general sessions are being planned with the thought in mind that everyone should gain much from attending. A "Questions and Answers" period is on the agenda. This interchange of ideas is helpful to all members. The hostess Auxiliary (Sangamon County) have many lovely social events planned—Dinners, Teas, Luncheons, Tours, etc.

May we see you in Springfield?
Mrs. E. M. Egan
President

"YOUR MENTAL HOSPITALS" — EDUCATING THE MENTALLY DEFECTIVE

It has been estimated that only a small percentage of all individuals having an I.Q. of 70 or less are committed to institutions for the mentally handicapped. The remaining non-institutionalized individuals make an adjustment socially and economically and are not a burden on society. The Illinois Department of Public Welfare has therefore directed a treatment program for this class of patients with a view in mind, that when the individuals are returned to society they will become self-sustaining and

productive. It is employing the so called total push program in the education for the educable mentally handicapped.

Seven points are stressed in this new technique known as the audiovisual program in which all of the five senses are employed in the teaching and training of these individuals. These factors are stressed and have been very aptly outlined by Miss Irene Parrotte, the Dean of the School at the Lincoln State School and Colony. Briefly they are as follows:

1. — *Motor skill.* It is recognized that the mentally handicapped persons will make their living by the use of their hands and muscles. They learn motor coordination and manual trades such as farming, repair work, etc.

2. — *Health.* The patient is taught good habits in caring for his teeth, hair, skin and nails. He is taught to understand food values, the necessity for regularity, safety aids and first aid habits.

3. — *Personal behavior habits.* He must learn the value of money, with emphasis on thrift, punctuality and neatness.

4. — *Social pattern.* The patient is taught to live in an acceptable manner with others. He learns cooperation and self sufficiency. It is important that he realize that he is to follow rather than to lead. He must also learn to know who he must follow. Group relationship, protection of the weak and helpless, with respect for law and order is stressed.

5. — *Community habits.* He is taught that he should assume a share of the community responsibility with a conservation of community resources and the use of recreational facilities, such as churches, schools and institutions.

6. — *Appreciative attitude.* He is taught to recognize beauty and appreciate it wherever it is found. This may be in the area of music, art, etc.

7. — *Symbolism skills.* He is taught to speak clearly and correctly, even though his vocabulary is limited. He is taught to read, write and spell within the limitations of his ability. Arithmetic is given the patient, having in mind, that he should learn to make change, tell time and to count within the limitation of his ability.

The audio-visual program may be considered as a total push program. It employs the technique of showing movies, playing of records, demonstrations, field trips, parties and picnics. The room in which the student attends school has globes, maps, charts, bulletin boards, etc. When field trips are taken they are directed to the unit of study taking place. It has been clearly demonstrated that the patient has been able to obtain a clearer concept when all five senses are employed when studying a certain problem. Every possible avenue of approach is utilized in order to fix ideas, associations, and information in their handicapped minds with their limited ability of assimilation and retention of knowledge.

G. A. Wiltrakis, M.D.
Deputy Director

CANAL ZONE NEEDS PHYSICIANS

Dear Doctor:

The Panama Canal needs civilian physicians for duty in the Canal Zone. This need has arisen because the Army is withdrawing a large number of commissioned Medical Officers who have been assigned to duty with The Panama Canal.

This is an unusual opportunity to gain valuable professional experience in a tropical country based on a wide variety of clinical material. There are many opportunities in the hospital service as specialist in pediatrics, general surgery, obstetrics, roentgenology, psychiatry, internal medicine, cardiology, tuberculosis, thoracic surgery, orthopedics, urology, and anesthesiology.

Free transportation to the Canal Zone is provided for the appointee, his family, and his household goods. Family housing at a reasonable rental is immediately available. A two months' vacation with pay (which includes time lost for illness) is allowed and reduced rates are granted on Panama Line vessels between the Canal Zone and New York.

Candidates for these positions must be graduates of Class A medical schools approved by the American Medical Association. They must also be American citizens not over 45 years of age. The age limit may be waived under certain conditions.

These positions are on the medical staffs of the Panama Canal hospitals and in out-patients clinics. Starting salaries range from $6,750.00 a year to $9,500.00 a year, according to training and experience, and type of position.

It would be appreciated if you would furnish us the names and addresses of any persons who might be interested in such employment. The office will then furnish them further information. Candidates interested in applying immediately may complete and forward to me Standard Form 57, copies of which are available at your local post office.

Your cooperation and assistance in this matter will be greatly appreciated. A franked envelope, which requires no postage, is attached for your convenience in replying.

Very respectfully,
B. F. Burdick
Chief of Office, The Panama Canal,
Washington 25, D. C.

EXAMINATIONS OF THE AMERICAN BOARD OF OBSTETRICS AND GYNECOLOGY

The general oral and pathology examinations (Part II) for all candidates will be conducted at The Shelburne, Atlantic City, New Jersey, by the entire Board from Sunday, May 21 through Saturday, May 28, 1950. Formal notice of the exact time of each candidate's examination will be sent him several weeks in advance of the examination dates.

Candidates for re-examination in Part II must make written application to the Secretary's office not later than April 1, 1950.

Applications are now being received for the 1950 examinations. Application forms and Bulletins are sent upon request made to

Paul Titus, M.D., Secretary,
American Board of Obstetrics and Gynecology, Inc.
1015 Highland Building,
Pittsburgh 6, Pennsylvania.

POSTGRADUATE COURSE ON GENERAL SURGERY

"Practical Problems in General Surgery" is the subject of a continuation course to be presented on April 6, 7, and 8 by the Frank E. Bunts Institute and the Cleveland Clinic. On Friday evening, April 7, Dr. Daniel C. Elkin of Emory University, Dr Claude Beck of Western Reserve University Medical School, and Dr. R. B. Turnbull of the Cleveland Clinic will take part in a symposium on "Vascular Surgery". On Saturday morning, April 8, Dr. George G. Finney of Johns Hopkins University and others will present Panel Discussions on surgery of the colon, pancreas, biliary tract, and stomach and duodenum.

Inquiries regarding the complete program and registration can be addressed to the Director of Education, Frank E. Bunts Educational Institute, 2020 East Ninety-third Street, Cleveland 6, Ohio.

AMERICAN COLLEGE OF CHEST PHYSICIANS PRIZE ESSAY AWARD

The Board of Regents of the American College of Chest Physicians offers a cash prize award of two-hundred-and-fifty dollars ($250.00) to be given annually for the best original contribution, preferably by a young investigator, on any phase relating to chest disease.

The prize is open to contestants of foreign countries as well as those residing in the United States. The winning contribution will be selected by a board of impartial judges and the first award will be made at the forthcoming annual meeting of the College to be held in San Francisco, June 22-25, 1950.

The College reserves the right to invite the winner to present his contribution at the annual meeting, and to publish the essay in its official publication *Diseases of the Chest*. Contestants are advised to study the format of *Diseases of the Chest* as to the length, form and arrangement of illustrations to guide them in the preparation of the manuscript.

The following conditions must be observed:

(1) Five copies of the manuscript, typewritten in English, should be submitted to the office of the American College of Chest Physicians not later than May 1st, 1950.

(2) The only means of identification of the author or authors shall be a motto or other device on the title page and a sealed envelope, bearing the same motto on the outside, enclosing the name of the author or authors.

Additional information may be obtained from the Executive Secretary of the College, 500 North Dearborn Street, Chicago 10, Illinois.

WHERE IS OUR HISTORY?

Editor
Illinois State Medical Journal

I am wondering what has become of the history of the Illinois State Medical Society.

Some twenty-five years ago the society spent several thousand dollars accumulating a vast amount of material, several trunk-fulls I am told, which was in the hands of the late editor Dr. Wholon. Since then an attempt has been made to revive the history, and at one time it was suggested that the women's auxiliary of each county write up the individual county histories, and that these be compiled into a state history.

Lately, I understand, an historical committee has been formed and is going ahead with the project of collecting material and sorting it out so that histories can be compiled. The work of this historical committee is tremendous and deals with the development of medicine in this state for over a hundred years. It naturally includes the growth of medical science, the growth of colleges, hospitals, nursing, and special societies, and the histories of individual noted physicians. As I see it, the work has no limitations and no end.

What we need is an overall, comprehensive review of the gradual development of medicine and the facilities for caring for the sick, in the last hundred years. Also we need a history of the men who have made up our medical societies in the various counties. It is to this last that I wish to draw your attention with some rather specific suggestions.

Each county should have a loose leaf file for every physician in the county, the first page of which should be his application blank for membership in the county society, and following that several blank pages could be inserted upon which newspaper clippings could be filed as well as other items of interest concerning his life. In this way we would have an automatic living history produced of the individual which could be easily compiled into a printed book from time to time. Somehow or other the individual doctor is always anxious to see his name mentioned in any historical sketch, and probably interest cannot be kept alive unless we do publish some from time to time that deals with our history, our friends, or ourselves.

When it was suggested that I write you this letter, I had publicly said that I thought the historical committee and all of the officers of the state medical society needed some needling to keep them on and at the job. However, it is not a one man job; it is a job for all of us and the county societies should do their part in compiling their histories. They sure need a tonic or a needling of benzedrine now and then to keep them up and at it. Sure it is your fault, Mr. Editor; it is the history committee's fault, and it is everybody's fault. But this time when we have really made a start, let's tell the members about it and keep up an active interest and really produce something in the next year to show that the members' money has not been spent in vain.

Very truly yours,
A chronic knocker and yet a real booster.

DOCTOR IS YOUR NAME LISTED?

The Scientific Service Committee of the Illinois State Medical Society is preparing an addena or supplementary list of speakers and subjects for use by county medical societies in arranging their regular programs. The new compilation will be a supplement to the present List of Speakers which was revised three years ago, including the names of some 500 physicians who are willing to cooperate in the activities of the Scientific Service Committee.

Physicians who wish to be included in the new List should send their names and subjects to Miss Ann Fox, 30 North Michigan Avenue, Chicago 2.

It is hoped that every County Medical Society in Illinois will be represented in the proposed supplement. — Robert S. Berghoff, Chairman.

PRELIMINARY PROGRAM

OF THE

Andy Hall Annual Meeting
Illinois State Medical Society

SPRINGFIELD, ILLINOIS
MAY 23, 24, 25, 1950

Scientific Programs

General Assembly

Dr. John L. Keeley, Chairman of the Executive Committee of the Committee on Scientific Work, has scheduled his papers to be presented before the six sessions of the General Assembly at the 1950 annual meeting.

These sessions will be held in the Armory, under the same roof with the scientific exhibits, the scientific movies and the technical exhibits.

Before this group will be presented the President's Address given by Dr. Walter Stevenson, the Oration in Medicine and the Oration in Surgery.

Out of state guest speakers from each Section and in each specialty will appear before the General Assembly and the tempo and tenor of the session is keyed to the needs and desires of the general practitioner in Illinois.

TUESDAY, MAY 23, 1950

National Guard Armory

9:00-9:10 — Opening of the 1950 Annual Meeting, Walter Stevenson, President Illinois State Medical Society, Quincy, Illinois

9:10-9:30 — "Bacteriology of Ocular Infections in the Midwest", Ronald I. Pritikin and M. Louis Duchon, Rockford, Illinois

9:30-9:50 — "Findings and Limitations in Gastrointestinal X-Ray Studies", Homer W. Vanlandingham, Rockford, Illinois

9:50-10:10 — "The Management of Endometriosis", James P. Fitzgibbons, Instructor in Obstetrics and Gynecology, University of Illinois College of Medicine, Chicago, Illinois

10:10-10:30 — RECESS to view SCIENTIFIC AND TECHNICAL EXHIBITS

10:30-10:50 — "Ambulatory Treatment of Retinal Vascular Diseases with Dicoumarol", Francis W. Parker, Jr., Rockford, Illinois

10:50-11:20 — PRESIDENT'S ADDRESS, Walter Stevenson, President Illinois State Medical Society, Quincy, Illinois

11:20-12:05 — ORATION IN MEDICINE: "Recent Advances in Hematology" Carl Vernon Moore, Professor of Medicine, Washington University School of Medicine, St. Louis, Missouri

Afternoon Session

1:30-1:50 — "Results of Chest X-Ray Screening in Hospitals", John E. Madden, Radiologist, Decatur and Macon County Hospitals, Decatur, Illinois

1:50-2:10 — "The Judicious Use of Parenteral Therapy", S. O. Levinson, Chief, Department of Blood and Serum Therapy, Michael Reese Hospital, Chicago, Illinois

2:10-2:40 — "Indications and Dangers of Anticoagulant Therapy"
In Medicine (15 minutes) Normal B. Robert, Clinical Assistant Professor of Medicine, University of Chicago, Illinois
In Surgery (15 minutes) O. C. Julian, Clinical Assistant Professor of Surgery, University of Illinois School of Medicine, Chicago, Illinois

2:40-3:20 — RECESS to view SCIENTIFIC AND TECHNICAL EXHIBITS

3:20-3:40 — "Urological Conditions in Infants and Children", Knowlton E. Barber, Assistant Professor of Urology, Northwestern University Medical School, Chicago, Illinois

3:40-4:10 — "Obstetrical Helps", C. O. McCormick, Clinical Professor of Obstetrics and Gynecology, Indiana University Medical Center, Indianapolis, Indiana

WEDNESDAY, MAY 24, 1950

9-9:10 — "Anesthesia in Obstetrics", Carl Greenstein, Champaign, Illinois

9:10-9:40 — "X-ray Findings in Adult Urological Conditions", Paul E. Dirkse, Radiologist, St. Francis Hospital, Peoria, Illinois

9:40-10 — "The Newer Anti-Biotics", Clayton G. Loosli, Professor of Preventive Medicine, University of Chicago, School of Medicine, Chicago

10:00-10:30 — Recess — To view Scientific and Technical Exhibits

10:30-10:50 — "The Need for a Medical Program in Small Industry", Joseph H. Chivers, Chairman Medical Advisory Board to Illinois Division of Industrial Hygiene, Illinois State Medical Society, Chicago

10:50-11:10 — "The Etiology and Management of Abdominal Distention", Walter G. Maddock, Profesor of Surgery, Northwestern Medical School, Chicago

11:10-11:40 — "Hypertension: Evaluation of Present Methods of Treatment", Chester M. Kurtz, Associated Professor of Medicine, University of Wisconsin Medical School

Afternoon Session

1:30-1:50 — "The Relationship of Health Department Programs to the Practicing Physician", Roland R. Cross, Director, Illinois Department of Public Health, Springfield, Illinois

1:50-2:20 — "Recent Advances in the Management of Anemias", Max M. Strumia, Pathologist, Bryn Mawr Hospital, Bryn Mawr, Pa.

2:20-2:50 — "Stuttering and Stammering in Children", Wendell Johnson, Professor of Speech, Pathology and Psychology State University of Iowa.

2:50-3:20 — Recess — To View Scientific and Technical Exhibits

3:20-4:20 — **"Poliomyelitis Symposium"**
Early Clinical Manifestations, George L. Drennan, Jacksonville, Illinois
Public Health Aspects, E. A. Piszczek, Controller, The Suburban Cook County Tuberculosis Sanitarium District, Forest Park, Illinois
Clinical Pathological Correlation, Max Appel, Pathologist at Burnham City Hospital, Champaign, Illinois
Treatment of Poliomyelitis, Robert Leo Bennett, Jr., Warm Springs, Georgia
Question and Answer Period

THURSDAY, MAY 25, 1950

9-9:20 — "Practical Laboratory Evaluation of Renal Function", James P. Simonds, Professor of Pathology Emeritus — Northwestern University Medical School, Chicago

9:20-9:40 — "Trends in Management of Acute Appendicitis in Children", Paul F. Fox, Asst. Clinical Professor in Department of Surgery, Stritch School of Medicine of Loyola University, Chicago

9:40-10:10 — "Diagnosis of Cardio-vascular Anomalies, by Routine Roentgen Methods", Edward B. Neuhauser, Instructor in Roentgenology, Harvard Medical School, Roentgenologist to Children's Hospital, Boston, Mass.

10:10-10:40 — Recess — To view Scientific and Technical Exhibits
10:40-11:10 — "Types and Treatment of Deafness", Alfred T. Lieberman, Asst. Professor of Otology and Laryngology, Johns Hopkins University School of Medicine, Baltimore, Maryland
11:10-11:30 — "The Use of ACTH in Arthritis", David E. Markson, Asst. Professor of Medicine and Director of the Arthritis Clinic, Northwestern University Medical School, Chicago
11:30-12 — "The Indications for Surgery in Gallbladder Disease", Robert M. Zollinger, Professor of Surgery, Ohio State University Medical School, Columbus, Ohio

Afternoon Session

1:30-1:50 — "Trends in the Management of Tuberculosis", Otto L. Bettag, Tuberculosis Control Officer —City of Chicago and Medical Director of the Municipal Tuberculosis Sanitarium, Chicago, Illinois
1:50-2:10 — "Roentgenology in Obstetrical Problems", Francis Blonek, Rock Island, Illinois
2:10-2:55 — "Oration in Surgery", "Half Way Through". Raymond W. McNealy, Associate Professor of Surgery, Northwestern Medical School, Chicago
2:55-3:25 — Recess — To view Scientific and Technical Exhibits
3:25-3:45 — "Errors in Treatment of Common Fractures" Joseph T. Coyle, Clinical Instructor in Bone and Joint Surgery, Stritch School of Medicine, Lovola University, Chicago
3:45-4:05 — "Surgery of the Nose in Children", M. H. Cottle, Professor and Head of Department of Otolaryngology, Chicago Medical School, Chicago

SECTION PROGRAMS

On Wednesday several of the Sections plan to have independent section meetings. These meetings will be held either in small rooms in the Armory, or in meeting rooms in the various hotels in Springfield. Our present program for the Sections is as follows:
Wednesday morning:
Section on Eye, Ear, Nose and Throat
Section on Public Health and Hygiene
Section on Pediatrics
Section on Pathology
Wednesday afternoon:
Section on Radiology will have a film reading session at approximately 3:00 o'clock with their guest speaker presiding.

Also, the Physicians Association of the Department of Public Welfare will meet Wednesday and will publish their program in our final announcement. They plan to have papers of interest to the general practitioner and invite those who are interested to attend their session. The meeting will be held in one of the Springfield hotels.

The Section on Pediatrics desires to have a luncheon served after their Wednesday morning session, and plans for this are also being developed.

Section on Eye, Ear, Nose and Throat

Chairman: Richard C. Gamble, Chicago
Secretary: William A. McNichols, Dixon

WEDNESDAY MORNING, MAY 24, 1950

9:00 — "Significance of Visual Fields Taken with Minute Light Stimuli in Dark Adapted Eyes in Early Glaucoma", Stefan VanWien, Chicago, Instructor in the Eye Department of Northwestern University
9:20 — "Diagnosis and Prognosis of Malignancy of Nasopharynx", Joseph G. Schoolman, Chicago, Assistant Professor of Otolaryngology, University of Illinois.
9:40 — "A Short Study of Iritis: Significance of Early Diagnosis and Treatment", Joseph Shanks, Chicago.
10:00 — "Acute Laryngo-Tracheo-Bronchitis and its Management", Hans Von Leden, Chicago, Clinical Associate, Department of Otolaryngology, Stritch School of Medicine, Loyola University.
10:20 — "The Function of the Canal of Schlemn", Michael Goldenburg, Chicago.
10:40 — "The Problem of Deafness in Children", Alfred T. Lieberman, Baltimore, Maryland, Assistant Professor of Otology and Laryngology, Johns Hopkins University School of Medicine.
11:10 — "Personal Experiences with Cataract Surgery", Max Hirschfelder, Centralia
11:30 — "Aerosinusitis and Otitis Media", John C. Mermeren, Chicago, Assistant Clinical Professor of Otolaryngology, Stritch School of Medicine, Loyola University.

Section on Pediatrics

Chairman: George L. Drennan, Jacksonville
Secretary: Anders J. Weigen, Chicago

WEDNESDAY MORNING, MAY 24, 1950

"Diabetes Mellitus in Infants and Children"
Alvah L. Newcomb, Chicago
Associate in Pediatrics, Northwestern University Medical School
"Viral Hepatitis in Infants and Children"
Alfred S. Traisman, Chicago
Associate in Pediatrics, Northwestern University Medical School
"Aids and Pitfalls in Radiology in Children"
William E. Anspach, Chicago
Associate in Radiology, Northwestern University Medical School
"Diagnosis and Treatment of Unusual Conditions in Infants and Children"
John L. Reichert, Chicago
Associate in Pediatrics, Northwestern University Medical School

The secretary of the Section, Dr. Anders Weigen, has planned for a luncheon to be attended by the Chicago Pediatric Society and guests on Wednesday noon, May 24. As plans for the luncheon are developed, announcements will be made.

Section on Pathology

Chairman: Harry M. Steen, Springfield
Secretary: Coye C. Mason, Chicago

WEDNESDAY MORNING, MAY 24, 1950

9:00-9:20 — "Flocculation Tests in the Differential Diagnosis of Jaundice"
Hans Popper and Frederick Steigmann, Chicago
Discussion: 9:20-9:30

9:30-10:00 — "The Use of the Serum Protein Coagulation Test in the Diagnosis of Tumors"
A. Vass, Springfield (9:30-9:45)
Jacob N. Shanberge and Otto Saphir, Chicago (9:45-10:00)
Discussion: 10:00-10:10

10:10-10:30 — "Pathologic Findings in Poliomyelitis"
Paul B. Szanto, Chicago
Discussion: 10:30-10:35

INTERMISSION

10:45-11:10 — "Pathologic Anatomy of Trauma"
Jerry Kearns, Chicago
Discussion: 11:10-11:15

11:15-12:00 Guest Speaker
Max M. Strumia, Bryn Mawr, Pennsylvania
Director, Clinical Laboratory, Bryn Mawr Hospital; Assistant Professor Graduate School, Pennsylvania University; Associate Professor in Pathology, Pennsylvania University.

DINNERS — LUNCHEONS

The Annual Dinner

WEDNESDAY EVENING, MAY 24, 1950
Abraham Lincoln Hotel

The Annual Dinner of the Illinois State Medical Society, held Wednesday evening, May 24, will honor the retiring President, Dr. Walter Stevenson of Quincy, and Dr. Andy Hall our outstanding general practitioner.

The immediate Past President, Dr. Percy E. Hopkins will act as toastmaster. He will introduce the Past Presidents and guests present at the dinner, but none will be asked to speak. The President's Certificate will be presented to Doctor Stevenson by the Chairman of the Council, Dr. Oscar Hawkinson.

Present at the Speakers' Table this year will be the man for whom this year's meeting is named, Dr. Andy Hall of Mt. Vernon.

An outstanding speaker will deliver the address of the evening and there will be no other speeches.

If you care to make reservations for this dinner, please send the form below to this office, and your request will be cared for.

Other Groups Will Meet

The Physicians' Association of the Department of Public Welfare plans a meeting on Wednesday, May 24, with the program pointed for the general practitioner.

The American College of Chest Physicians, Illinois Chapter, of which Darrell H. Trumpe of Springfield is the President, plans to have an evening session following a dinner meeting of this organization. This program will be scheduled for Tuesday night since the only conflict that evening is the Secretaries' Conference. As a dinner meeting, we will ask that this group adjourn in time to enjoy the hospitality of the Society at the annual Fellowship Hour held Tuesday evening.

Local committees and alumni groups are planning luncheons — the Diplomates of the National Board of Medical Examiners, Phi Chi Fraternity, various medical school alumni groups.

Fifty Year Club

The Fifty Year Club will have its annual luncheon with its Chairman, Dr. Andy Hall, sending out the usual invitations and planning the annual program. These outstanding men and women in medicine will be the guests of the state society again this year. With the outstanding general practitioner as the chairman of the committee, this luncheon will undoubtedly be a "highspot and a must" at the 1950 meeting.

RESERVATION BLANK

Dr. Harold M. Camp, Secretary

Illinois State Medical Society

Monmouth, Illinois

Please reserve for me places at the Annual Dinner of the Illinois State Medical Society to be held Wednesday evening, May 24, 1950 at the Hotel Abraham Lincoln in Springfield.

Please reserve for me places at the Secretaries' Conference to be held on Tuesday evening, May 23, at the 1950 annual meeting. Hotel accommodations to be announced.

Signed:

Address:

Scientific Exhibits

For your yearly Post-Graduate review, don't fail to visit the Scientific Exhibits and Scientific Movies.

YOU WILL SEE:
Effects of A.C.T.H.
Effects of Radio-Active Isotopes
Steroids in Treatment of Breast Cancer
Pathogenesis and Treatment of Appendicitis
Practical Office Gynecology
Etiological Diagnosis of Heart Disease
Quantitative Studies of Gastric Secretions
Significance of Iron Deficiency Diseases
Destructive Operations in Obstetrics
AND
MANY OTHERS

COMMITTEE

Coye C. Mason, M.D., Chairman & Director of Scientific Exhibits
Hugh A. Flack, M.D., Chicago
Arkell M. Vaughn, M.D., Chicago
Lawrence W. Peterson, M.D., Chicago
Dwight E. Clark, M.D., Chicago
Leo M. Zimmerman, M.D., Chicago

Technical Exhibitors

KEEP THESE FIRMS IN MIND

The following list of technical exhibitors have taken booth space at our 1950 annual meeting. We feel that you should keep this list for reference and remember that these particular companies are cooperating with the Illinois State Medical Society. They plan to act as your host at their booth during our annual session. Also remember that they help make your annual meeting possible.

Abbott Laboratories, North Chicago, Illinois
A. S. Aloe Company, St. Louis, Missouri
Armour Laboratories, Chicago, Illinois
Ayerst, McKenna & Harrison, Ltd., New York, New York
The Borden Company, New York, New York
Cambridge Instrument Company, New York, New York
Camel Cigarettes, New York, New York
The Carnation Company, Los Angeles, California
The Chicago Pharmacal Company, Chicago, Illinois
Ciba Pharmaceutical Products Company, Summit, New Jersey
The Coca Cola Company, Atlanta, Georgia
The F. A. Davis Company, Philadelphia, Pennsylvania
The Doho Chemical Corporation, New York, New York
Doak Company, Inc., Cleveland, Ohio
Eisele and Company, Nashville, Tennessee
Eli Lilly & Company, Indianapolis, Indiana
Encyclopaedia Britannica, Chicago, Illinois
The C. B. Fleet Company, Lynchburg, Virginia
General Electric X-Ray Corporation, Milwaukee, Wisconsin
H & M Sales Company, Chicago, Illinois
Hanovia Chemical & Manufacturing Company, Chicago, Illinois
Harrower Laboratory, Inc., Jersey City, New Jersey
Hoffmann LaRoche, Inc., Nutley, New Jersey
Irwin Neisler & Company, Decatur, Illinois
"Junket" Brand Foods, Little Falls, New York
Kelley-Koett Manufacturing Company, Covington, Kentucky
Lanteen Medical Laboratories, Evanston, Illinois
Lederle Laboratories, New York, New York
Lincoln Laboratories, Decatur, Illinois
J. B. Lippincott Company, Philadelphia, Pennsylvania
M & R Dietetic Laboratories, Inc. (Similac Division) Columbus, Ohio
The S. E. Massengill Company, Bristol, Tennessee
Mead Johnson & Company, Evansville, Indiana
Medical Arts Supply Company, Chicago, Illinois
Medical Protective Company, Fort Wayne, Indiana
V. Mueller & Company, Fort Wayne, Indiana
V. Mueller & Company, Chicago, Illinois
Maurice Natenberg, Publishers Representative, Chicago, Illinois
The National Drug Company, Philadelphia, Pennsylvania
A. R. Nechin Company, Chicago, Illinois
Parke Davis & Company, Detroit, Michigan
Philip Morris & Co. Ltd. Inc., New York, New York
Sanborn Company, Cambridge, Massachusetts
Sandoz Chemical Works, Inc., New York, New York
The W. B. Saunders Company, Philadelphia, Pennsylvania
Schenley Laboratories, Inc., New York, New York
The Schering Corporation, Bloomfield, New Jersey
G. D. Searle & Company, Chicago, Illinois
Security Laboratories, Burlington, Iowa
Sharp & Dohme, Philadelphia, Pennsylvania
Spencer, Inc., New Haven, Connecticut
E. R. Squibb & Sons, New York, New York
Stethetron Sales Company, Wenonah, New Jersey
Sutliff & Case Company, Inc., Peoria, Illinois
Universal Products Corporation, Norristown, Pennsylvania
Upjohn Company, Kalamazoo, Michigan
U. S. Vitamin Corporation, New York, New York
Varick Pharmacal Company, New York, New York
Winthrop Stearns, Inc., New York, New York
The Zemmer Company, Pittsburgh, Pennsylvania

Hotel Reservation Form

for

Illinois State Medical Society's

110th Annual Meeting

May 23, 24, 25, 1950

Springfield, Illinois

Official Headquarters: Hotel Abraham Lincoln

* * * *

Please Reserve at:(First choice hotel)

.....(2nd choice hotel)

.....(3rd choice hotel)

A Double-bedded ☐ or Twin-bedded room ☐ (Limited Number of Singles Available)

I will arrive
(Date) (Time)

I will depart
(Date)

Signed
(Name)

.....
(Address)

Return this coupon to:

CONVENTION & VISITORS DEPARTMENT
SPRINGFIELD CHAMBER OF COMMERCE
SPRINGFIELD, ILLINOIS

**Please disregard this form if you have already secured hotel reservations in Springfield.

ABRAHAM LINCOLN HOTEL — 5th & Capitol Avenue
ELKS CLUB (MEN ONLY) — 509 South 6th St.
EMPIRE HOTEL — 418 East Jefferson St.
GRAND HOTEL — 109 North Seventh St.
ILLINOIS HOTEL — 418½ East Monroe St.
LELAND HOTEL — 6th & Capitol Ave.
PALMER HOTEL — 5th & Jefferson Sts.
ST. NICHOLAS HOTEL — 4th & Jefferson Sts.

ORIGINAL ARTICLES



Amebiasis (Amebic Colitis): Present-Day Management

J. Arnold Bargen, M.D.,
Division of Medicine, Mayo Clinic
Rochester, Minnesota

The purpose of this presentation is to review for the physician in every day practice the modern trends in the management of amebiasis, to stress its epidemiology and phophylaxis from the practical standpoint, and to mention the new studies and the progress made since World War II. No attempt will be made to present a complete review of the recent voluminous literature. Only those studies which are particularly pertinent to this presentation will be mentioned.

Incidence and Epidemiology.—Although amebiasis was at one time considered a disease of the tropics, or at least a disease of warm climates where sanitation was not too satisfactory, it has been found universal in its distribution. Actually no part of the globe, including the Arctic Circle, is free from infections by Endamoeba histolytica. Massie[1] has suggested that probably one of every 20 persons around us has amebiasis and that its origin may be in the corner grocery store. In a reply to an inquiry concerning amebiasis published on August 30, 1947, it was suggested that from 20 to 25 per cent of the service men returning from the Orient, are infected with Endamoeba histolytica[2]. In a New Orleans orphanage the incidence was found to be 55.5 per cent. Ten per cent of the patients with appendicitis in Oschner's clinic at the Charity Hospital in New Orleans had amebic involvement, according to Faust[3], and he further suggested that the incidence of infestation in the general population of the United States is from 5 to 10 per cent. According to the United States Department of Commerce, the Bureau of Census on Vital Statistics and Special Reports, 3,410 cases of amebiasis were reported in 1945 with 190 deaths. It is, of course, obvious that this does not represent the total number of cases in the United States.

Read at the Annual Meeting of the Illinois State Medical Society, Chicago, Illinois, May 16 to 18, 1949.

On the other hand, a survey of 1,000 naval returnees made in a Philadelphia hospital revealed an incidence of 8.9 per cent. At the United States Naval Medical Center in the year 1945 to 1946, among 2,535 food handlers examined the incidence was 0.7 per cent, whereas among 1,070 patients with symptoms of indigestion examined it was 3.5 per cent. Tupas and associates[4] reported a great increase in the incidence of amebiasis among children. Whereas in the years of April, 1938, to April, 1944, inclusive, only 12 cases were encountered, in one year from April, 1945, to April, 1946, 41 cases were found among children between 2 and 14 years of age. He emphasized the great increase in occurrence of the condition since World War II. Morton[5] made sigmoidoscopic examinations on 1,000 soldiers who had diarrhea at the time of their discharge. In 303 of these, he found lesions suggestive of amebic lesions. However, the sigmoidoscopic examination failed to reveal any lesion in 20 per cent of the patients in whom Endamoeba histolytica were found. In a review of the subject published in 1948 Palmer, Kirsner, Ricketts, Maimon and Dashill[6], stated that the incidence in the United States is 11.6 per cent; in Colombia, South America, 60 per cent; in China, 20.3 per cent; in Java, 23.6 per cent; in India, 21.9 per cent; in Kala Peninsula (Arctic Circle), 60.6 per cent, and among English recruits after World War II, 5.7 per cent.

In the decade from 1921 through 1930, 1,101 cases of infection by Endamoeba histolytica were seen at the Mayo Clinic and these patients came from forty-two states of the Union, from five of the provinces of Canada, from Mexico, Central and South America, the West Indies and the Orient.

The chronic form of the disease is of particular concern. It causes ill health, lowered vitality and decreased resistance to other infections. Patients suffering from chronic amebiasis seldom visit the doctor, and thus perhaps they do not have in mind the possible presence of the disease. However, these people can and do transmit the disease. The infection is frequently water-borne and is due to poor sanitation, but it also is commonly transmitted by food, food handlers and insects. The trophozoites may be destroyed by the gastric secretions, but from an epidemiologic standpoint the cysts of Endamoeba histolytica are much more important. It has been found that a patient who has acute symptoms may pass an average of 15,000,000 cysts daily, and these cysts may remain viable for days. An "amebic carrier" is in reality a person who has amebiasis which has not manifested severe enough symptoms to require the attendance of a physician. The seriousness of an epidemic of amebiasis is comparable to an outbreak of smallpox, yellow fever, bubonic plague or other similar acute conditions. Although epidemics of the diseases just mentioned usually create a panic and result in prompt and drastic measures to clear up the infection, an epidemic of amebiasis frequently may be treated rather lightly and allowed to have its own way.

Diagnosis.—The symptoms of amebiasis are variable. No syndrome pathognomonic of amebiasis can be outlined. The course of the disease is changeable; it may vary in severity from attacks of acute fulminating colitis to mild and seemingly negligible forms of intestinal dysfunction. The history may resemble that of other inflammatory and ulcerative intestinal diseases; namely, thrombo-ulcerative colitis, bacillary dysentery, tuberculous colitis, acute food poisoning and even irritable colon.

However, spells of diarrhea, coming on suddenly, with passage of blood and large amounts of mucus, and accompanied by tenesmus, should make the clinician suspect that an amebic type of colitis is present until proof to the contrary is available. The duration of such symptoms does not have any significance. There may be intermittent periods of watery diarrhea, alternating with normal or constipated movements of the bowel. Some patients may have two or three loose stools in the morning for years, alternating with periods of more severe diarrhea, and at times with the passage of blood, pus and mucus; then they may have remissions without particular treatment. Patients may complain of borborygmus, pain over the region of the appendix or gallbladder, and reflex gastric symptoms. The most common history is of a series of recurrent exacerbations of diarrhea; these exacerbations become progressively more severe in the presence of some intercurrent infection or other debilitating condition. These exacerbations, however, do not correspond to the progressively increasing distress associated with thrombo-ulcerative colitis. It is also less common for

patients who have amebae in the intestines to have stools at night than it is for patients who have thrombo-ulcerative colitis.

The disease of a large group of these patients begins with sudden, fulminating, bloody, mucoid dysentery; in these cases there may be much straining, tenesmus and subsequent exhaustion. In another large group of patients constipation may predominate and may alternate with diarrhea only occasionally. Flatulence, abdominal discomfort, dyspepsia and tenesmus may be noted.

Ellenberg, Peyton, Gilmore, and Klein[7] in their observations of Endamoeba histolytica in the stools of 833 members of the United States Army found among 486 patients with amebiasis who consulted the medical department because of digestive complaints that 70 per cent had abdominal pain and cramps, only 35 per cent had diarrhea, less than 10 per cent had fever. The condition of the other 347 patients was found in a routine survey of personnel. Among these so-called carriers 68 per cent had characteristic symptoms and 83 per cent had typical findings and only 8 per cent had neither symptoms nor signs. In this particular group 820 were men and 13 were women.

Most individuals who are hosts to Endamoeba histolytica seem to have some symptoms which may be ascribed to their presence. Much has been said about the "carrier state" of amebiasis but recent studies by physicians from various parts of the world indicate that this term has been used too freely with a resulting tendency not to take the presence of Endamoeba hystolytica in this group of individuals seriously enough. Albright[8] stated that there is no such thing as a healthy carrier of amebiasis. In an editorial[9] published in 1947, it is stated that, "The carrier represents an active stage of the disease." The evidence concerning the inability of the parasites to live in the lumen of the bowel without producing lesions is rather conclusive. The aim of specific treatment is the eradication of all the parasites from the host.

General physical examination may not reveal anything of significance. Certain complications, however, such as hepatic abscess or pulmonary infection, may direct attention to the source of the trouble. Digital investigation of the rectum usually does not offer diagnostic data except in advanced cases and then the ulcers cannot always be distinguished from those of tuberculosis. The stiff, diffusely narrowed, tubelike rectum characteristic of thrombo-ulcerative colitis is not found in these cases. Moreover, the rectal wall tends to be soft and pliable, like that of the normal rectum.

The absolute diagnosis of amebiasis is dependent on the findings of Endamoeba histolytica in the feces or other bodily discharges. It is important to adopt a standard procedure for preparing the patient for these examinations. It is best to collect the specimen near the laboratory and it is well to have toilet facilities at hand.

The patient should be advised to have a free bowel movement about twelve hours preceding collection of the stool to be examined, and, if he does not have diarrhea, he is directed to take from ½ to 1 ounce (15 to 30 gm.) of magnesium sulfate on the morning of the examination and then to eat his usual breakfast.

Oily preparations and oily food should be avoided for at least forty-eight hours before he takes the salts. It is well to have the entire stool for examination; if it is formed, material should be taken from several places; if it contains patches of blood, pus or mucus, samples of these should be examined. Material from several portions of loose stools also should be selected.

The typical stool in acute cases is often reddish brown, and it may contain dark brown streaks of mucus. Here and there will be flecks of bloody mucus. Charcot-Leyden crystals are frequently present. The stools of patients who have amebiasis do not contain the quantities of pus seen in the stools of those who have thrombo-ulcerative colitis, and although they may contain more blood than pus, rarely are the massive bloody discharges encountered in severe cases of thrombo-ulcerative colitis seen.

The stool should be examined immediately, or at least within thirty minutes after passage, for motile vegetative forms of the ameba and also for cysts. Microscopic preparations may be made by emulsifying a small portion of the stool in a drop of saline solution placed on a clean glass slide, or a weak solution (1:1,000) of water-soluble eosin may be used instead of saline solution. A coverglass is placed over the material on the slide to be examined. The emulsion should be homogeneous and thin. Compound solution of iodine (Lugol's solution) run under

the coverglass or used to emulsify the feces is helpful. It will aid in the observation of the nucleus of the motile ameba, in counting nuclei in cysts, and in identifying the masses of glycogen.

The examination should be made in a warm room, and a desk light, shining on the stage of the microscope may be used. The amebae are refractile, and the light entering the field should be such as to allow them to stand out sharply.

It is a good plan, if amebiasis is strongly suspected and amebae are not found on the first and second examinations, to examine at least three loose stools on as many consecutive days. The formed stool can be emulsified with physiologic solution of sodium chloride and centrifuged at a moderate rate, and the sediment can then be examined to advantage.

Other methods of examination of stools, such as by permanently stained preparations and cultures, are technically cumbersome and not in general use, although they give good results in the hands of expert parasitologists.

Complement fixation tests have come into use in some large laboratories. Until recently, they have been more experimental and confirmatory than of real practical value to the average physician. In 1947 it[2] was stated that the complement fixation test was still considered unreliable, the incidence of errors was still too great and it was not a substitute for a stool test.

Proctoscopic examination is a valuable aid to diagnosis. About a third of the patients who have active amebic dysentery have demonstrable amebic proctitis, but only slightly more than a tenth of the patients who are infested with Endamoeba histolytica have grossly visible ulcers in the rectum. The proctoscopic appearance of the rectal lesions, even when repeated examinations of the stools give negative results, often provides sufficient evidence for a positive diagnosis. Even when Endamoeba histolytica cannot be demonstrated in the stool, it may be found in great numbers in the scrapings taken from the bases of the ulcers.

In the general run of cases the ulcers are discrete, and the mucosa between them, although not normal, is so mildly inflamed as to seem relatively uninvolved. In many cases of severe diarrhea resulting from Endamoeba histolytica the rectal and sigmoidal mucosa appear normal or only slightly hyperemic on proctoscopic examination. However, when the ulcers appear, they are typically discrete and do not have any characteristics which might lead to confusion with any other type of rectal ulcer, except certain types of tuberculous ulcers and, occasionally, those associated with the presence of Balantidium coli. The ulcers of amebic dysentery, even in its earliest stage, are not so small or so numerous as those of thrombo-ulcerative colitis; they are deeper, and in severe cases they increase in size. In thrombo-ulcerative colitis, the miliary ulcers do not increase in size with severe attacks; they become more numerous; the large ulcers, which it is believed result from secondary infection, are not to be considered as a part of the characteristic picture.

The amebic ulcer usually appears on the prominent folds of the intestinal wall or involves the valves of Houston. The margins are undermined by infiltration of the ulcerative process and prominence of the ulcer is increased further by accumulation of material on the base, composed largely of numbers of Endamoeba histolytica. This accumulation projects above the margin of the ulcer; it presents itself as a grayish white covering over the center of the ulcer. This grayish white cap is easily swabbed away, after which the true base of the ulcer is revealed right below the surface of the overhanging margins. This is the explanation of the punched-out or unbilicated appearance of the amebic ulcer. An amebic ulcer may be as small as 2 to 3 mm. in diameter, or it may be large and sloughing and be 2 to 3 cm. in diameter, or even larger, with irregular margins and overhanging, ragged edges; this latter type usually is seen fairly high in the colon. The usual ulcer is about 3 to 8 mm. in diameter, and there is generally a small zone of hyperemia surrounding it. In acute cases, in which the patient suffers from severe prostration and passes an excessive number of stools and sloughing and bleeding are present, it will be difficult to identify any ulcer; the involvement is massive and diffuse, and a single ulcer is seen only occasionally in the midst of the sloughing, bleeding mucosa.

Roentgenologic examinations, after a barium enema, of patients who have amebiasis are important. Usually results are negative and the examination, thus, helps rule out other intestinal lesions. In experience at the Mayo Clinic patients who present positive roentgenologic evi-

dence of amebic colitis are rare; when such signs are present, they are usually in the cecum and ascending colon. The positive evidence of amebiasis obtained on roentgenologic examination of the colon usually consists of a deformity which, in general, resembles that of other chronic ulcerative diseases. The differential diagnosis is based principally on the distribution of the involved segments. Thus, in the roentgenologic examinations of some patients extensive involvement by destructive disease is noted in the cecum, ascending colon and the rectum. The rest of the colon may be roentgenologically normal. In the North Temperate Zone, ulceration of the colon of amebic origin is likely to be less severe and less extensive than that which is of tuberculous or streptococcal origin. In a few instances, however, a deformity involving most or all of the large intestine has been observed, which under treatment, has disappeared almost entirely. When the deformity has been extensive, the regular, smooth, narrowed colon characteristic of chronic ulcerative colitis is not present, but rather, an irregular deformity is shown. The impression given is, that even in extensive disease, involvement is more mucosal than mural. To distinguish the condition from that caused by tuberculosis and from the infectious granulomas of the ileocecal coil is sometimes difficult.

Complications.—Distant inflammatory conditions, particularly abscess of the liver, lungs and brains, complicate or occur in association with infection by Endamoeba histolytica. Pericarditis, pleuritis, splenic and urogenital abscesses and cutaneous ulcers also have been noted. Amebic abscesses of the liver are usually single and situated in the right lobe. They may be multiple, however, and scattered throughout the liver. A single abscess may reach a large size before it is brought to the patient's attention, but multiple abscesses usually give rise to clinical symptoms early. Small abscesses, a few millimeters in diameter, may be solid and white. The contents of slightly larger abscesses are gelatinous and yellow, and large abscesses contain a reddish brown fluid and necrotic tissue. The puslike material evacuated from such abscesses resembles heated chocolate. Any sinus from which such pus exudes should suggest to the observer its cause. Large, acute hepatic absecesses have ragged walls, without evidence of encapsulation. Old abscesses may have definite fibrous capsules. Hepatic abscesses are usually near the surface of the liver and adhesion to adjacent viscera or to parietal peritoneum results; perforation or direct extension outside the liver then takes place.

Clinically, a condition described as amebic hepatitis also is recognized. The multiple diffuse abscesses are suggestive of diffuse inflammation. Among the 833 United States Army personnel reported on by Ellenberg and associates[7] 3 had severe amebic hepatitis, 1 had urinary amebiasis, 1 had amebic pneumonitis, and 5 had acute amebic appendicitis. Craig[2] stated that 15 to 20 per cent of persons who have suffered from acute attacks of amebic dysentery have hepatic abscesses. In a study of 58 cases of amebiasis among veterans of World War II, Spellberg and Zivin[10] found 15 who had hepatic complications; 7 of these had amebic hepatitis, and 8 had amebic abscesses. One of these also had a lung abscess and 1 a cerebellar abscess. These authors stated that previously only 1 case of cerebellar abscess had been reported in the literature. McHardy and Browne[11] reported a case of amebic pleural effusion, and they stressed the thought that this was probably embolic because of the lack of demonstrable extra-intestinal amebic lesions. Elsom, Rogers and Wood[12] observed 1,000 cases of amebiasis in an army general hospital on the India-Burma border. They analyzed 382 of these cases carefully; they found amebic hepatitis in 30 cases and amebic abscesses in 4. I have observed several patients with hyperplastic granulomatous lesions of the rectum which had been mistakenly diagnosed as carcinoma. The peculiar sponginess and lack of induration so commonly associated with carcinoma made me suspect amebiasis and an examination of material from the lesion revealed countless numbers of Endamoeba histolytica. Hawe[13] of Liverpool, England, has reported a similar case and Silverman and Leslie[14] have discussed tumors of the other portions of the intestinal tract, commonly called "amoebomas." Wilbur and Camp[15] have stressed the importance of careful roentgenologic examination of patients in whom cecal lesions of this type are suspected. They made a diagnosis of this lesion on roentgenologic examination in 9 patients with amebiasis. While tumors of this type are the cause of a great deal of misery and suffering and responsible for much loss of time from work it

is possible to say that they are rarely fatal. Manson-Bahr[16] in a report of 535 cases of amebiasis has only one fulminating, rapidly fatal case.

TREATMENT

General Consideration.—The author of a recent editorial[17] decried the unsatisfactory results of treatement of amebiasis. He proposed an elaborate therapeutic regimen for amebiasis and stated that a comprehensive antiamebic course nowadays includes: (1) a phase of six days during which six 1-grain (0.065 gm.) injections of emetine, 1,000,000 units of penicillin in doses of 33,000 units at intervals of three hours (or if given in the form of penicillin-in-oil in larger doses at longer intervals), and a total of 20 gm. of sulfadiazine (or sulfamezathine) in doses, of 1 gm. every four hours, are given; (2) a phase of twelve days during which oral administration of 2 grains (0.13 gm.) of emetine bismuth iodide each night is given after due precaution to obviate vomiting, and retention enemas of chiniofon (4 to 6 oz. [120 to 180 cc.] solution of 2 to 4 per cent) are given daily and (3) a final phase of twenty days during which diodoquin, in doses of 0.63 gm. is given thrice daily. Hospitalization is necessary for the first two phases but during the third the patient may live a normal life.

He emphasized further that all these elaborate routines still leave a residuum of uncured patients, and stated that it is becoming increasingly clear that the ideal amebicide has yet to be discovered.

Rail[18] has reported on six types of treatment and has applied each to 50 patients.

These are as follows: In his first series, he gave injections of 1 grain (0.065 gm.) of emetine hydrochloride daily for eight days; this was followed by four days' rest; and then he gave 1 grain of emetine hydrochloride daily for four days. The total dose was 12 grains (0.78 gm.). Carbarsone was given in doses of 0.25 gm. daily for ten days; the doses were started on the first day of rest and continued for two days after the cessation of treatment with emetine.

In his second series of treatment he gave 10 grains (0.65 gm.) of Kurchi bismuth iodide for ten days and 0.25 gm. of carbarsone for ten days. The two drugs were given concurrently.

In series 3, 0.5 gm. of enterovioform was given for twelve days, and 0.25 gm. of carbarsone for ten days. The carbarsone was given concurrently on the last ten days on which enterovioform was given.

In series 4, emetine and carbarsone were given as in series 1, 2 gm. of sulfapyridine at once and 1 gm. at intervals of four hours until a total of 13 gm. was given on the first two days of treatment with emetine.

In series 5, an attempt was made to treat the patients on exactly the lines laid down by Manson-Bahr and usually known as "Manson-Bahr's combined treatment." One grain of emetine bismuth iodide was given the first night and thereafter 2 grains was given each night for nine nights: total dosage was 19 grains (1.265 gm.). Phenobarbital, 1 grain, was given one hour before each dose. Retention enema consisting of 2.5 per cent solution of chiniofon was given daily for ten days; the enemas were preceded by colonic lavage with warm solution of sodium bicarbonate. Four ounces (120 cc.) of chiniofon was used and the drug was retained for a minimum of five hours.

In series 6, 2.5 per cent solution of chiniofon was given in retention enemas as in series 5 for the last ten days of the hypodermic emetine injections.

Recent Studies.—Faust, Heilbrunn, Lewis and Murray[19] stated that clinical and experimental data provide a wealth of divergent views concerning the ability of Endamoeba histolytica to produce disease. It has not been possible to predict the culturability of Endamoeba histolytica or the stage of the parasite from the history given by the patient from whom the inoculum was obtained or from the type of inoculum utilized. Nor was culturability a necessary index of infectivity or pathogenicity and so also the results of treatment of Endamoeba histolytica have varied greatly in the hands of this observer. No wonder then that a variety of newer therapeutic procedures have been tried. Shrapnel[20] has reported the use of enteric-sealed tablets of emetine hydrochloride; to adults he gave 2 grains daily for twelve days and to children 1 grain daily for twelve days. Thirty patients were treated, of whom 25 were adults; all were cured clinically but 1 adult patient had parasites two to nine months later.

Anderson, Johnstone, and Hansen[21] gave to a group of macaques (monkeys) infected with Endamoeba histolytica seven forms of arsenical drugs. To some they gave acridines and to another group subtilin. Carbarsone oxide was found most effective when given in enteric-coated pills in doses of 20 mg. three times a day for ten days. These workers stated that the arsenicals interfere with multiplication and cause degeneration of the nucleus and reticulation of the cytoplasm. Dwork[22] gave para-aminobenzoic acid to 12 patients who had Endamoeba histolytica with relief of symptoms. A group of workers from Brazil[23] offered a treatment which takes four months. They gave asenicals and iodoquinoline medicaments orally, alternating each for a week at a time. They recommended emetine only when active diarrhea was present. It has been found that Holarrheria floribunda (a shrub of the apocynaceous family) contains alkaloids specifically effective in amebic dysentery and diarrheas.

Satisfactory Present-Day Treatment.—Fortunately our experiences at the Mayo Clinic have made us more optimistic than some others are concerning treatment of amebiasis although we have not found the various therapeutic regimens proposed by others the most satisfactory. We have found that few diseases respond so well to treatment, when it is properly given, as does acute amebic dysentery. However, eradication of the parasites, prevention of recurrence and combating of the numerous irregular relapses have often been difficult therapeutic problems. The purpose of treatment is threefold: (1) destruction of amebae in the tissue; (2) destruction of amebae in the lumen of the intestine, and (3) healing of ulcerative lesions.

We have assumed that spontaneous cure of this disease does not take place, and that the portal of entry of Endamoeba histolytica is through the large intestine. For acute dysentery, the following combination of drugs has proved eminently satisfactory. Emetine hydrochloride, carbarsone or phenarsone sulfoxylate (aldarsone) and diiodo-hydroxyquinoline (diodoquin) or one of the oxyquinoline drugs with a high iodine content. The emetine hydrochloride is given hypodermically, the amount and manner of administration varying somewhat with the severity of the disease.

For severe attacks of amebic colitis we give 1 grain (0.065 gm.) every twelve hours until 6 grains (0.4 gm.) has been given. For the moderately severe attack 2/3 grain (0.043 gm.) given twice a day until 4 grains (0.26 gm.) has been given suffices. It may be well to repeat such a course after an interval of a week. A warning must be expressed about the use of emetine. Effective doses are likely to prove toxic, doses a little greater than therapeutic amounts have been found to injure cardiac muscle, and the effectiveness of emetine alone against amebae is not great. However, emetine is an excellent adjunct to other drugs for the relief of acute symptoms. In the doses mentioned, and with a total amount of the drug of not more than 10 to 12 grains (0.65 to 0.78 gm.) administered to any one person, we have not encountered symptoms of toxicity. Emetine is less toxic for the liver than other drugs which are recommended, and it gives quick symptomatic control, thus preparing the way for more curative drugs.

At the same time that the doses of emetine are begun, 0.25 gm. of carbarsone or aldarsone is given three times a day until 3 gm. (12 capsules) have been taken. If administration of emetine is to be started on a given day, the patient should start taking his arsenical that morning before breakfast. Thus he will begin to take he arsenical twelve hours before emetine and take his last dose twelve hours after the last dose of emetine. After administration of carbarsone is stopped, 0.25 to 0.5 gm. of diodoquin is given three times a day for seven days. Then the whole course, including the emetine and arsenical will be repeated. Only an occasional individual is sensitive to arsenicals and may have a reaction in the form of dermatitis, fever and vomiting, occasionally diarrhea; very occasionally visual and acoustical disturbances have occurred. If any of these symptoms occur, administration of the drug should be stopped promptly and one of the oxyquinoline derivatives should be substituted. In our experience satisfactory results in the treatment of amebiasis will be achieved if this routine is followed. We have come to the conclusion that persistent, adequate and properly timed administration of these drugs is the keystone to successful treatment. The proper combination of these drugs

given in rather large amounts over short periods of time and yet in amounts which are unlikely to produce toxic effects has resulted in cure of most patients with amebiasis. The following case is particularly instructive in this regard.

Case 1.—An unmarried man, age 28 years, from Iowa, came to the Mayo Clinic on April 9, 1946, because of cough, hemoptysis and diarrhea. Late in July, 1945, while on service with the United States Navy in the South Pacific, he had had diarrhea and his condition had been diagnosed as amebic dysentery. By the time he saw a physician in the South Pacific he had been passing from six to twelve bloody stools a day for three weeks. He was given carbarsone for ten days without other treatment. The symptoms subsided completely but five months later he had a similar attack of dysentery and was again relieved of symptoms by the same treatment. When he was discharged from service about that time, he still had amebae in his feces so he took carbarsone for twenty days more.

About January 1, 1946, several months after being discharged from service he was seized with chills and fever, his temperature going up to 104° F. The attack lasted several days and such attacks occurred five times about two weeks apart. Five weeks before admission to the clinic a diagnosis of malaria had been made on examination of a blood smear. In February, 1946, a periodic stabbing pain began in the right upper quadrant of the abdomen just under the ribs. This pain was present when he coughed or laughed. He began to cough frequently about the same time. Within three weeks the pain had become so severe and constant that he was hospitalized. Pain developed in the right shoulder and within a week the patient began to cough up blood. This and the pain in the shoulder had continued.

Fever had continued since his first admission to the hospital and a month previous to his admission to the clinic hookworms were found in the stools.

Upon arrival at the clinic the patient was hospitalized immediately as he obviously was acutely ill. His temperature the first afternoon was 105° F. but the next day it was 104.5° F. It was apparent that he had lost a great deal of weight.

The urine was clear except for a trace of albumin. The hemoglobin measured 10.2 gm. per 100 cc. The leukocytes numbered 17,300 per cubic millimeter. The sedimentation rate was 119 mm. in the first hour. The blood smear contained Plasmodium vivax and the stools, innumerable Endamoeba histolytica and ova of hookworms. Physical examination revealed marked tenderness over the liver and enlargement of it to about three finger breadths below the right costal arch. The area of liver dullness continued upward to involve the lower half of the thorax on the right. He expectorated large amounts of bloody purulent sputum which amounted to at least a quart (1,000 cc.) in twenty-four hours.

The first impressions were that this patient had amebic colitis with a liver abscess and a bronchopleural fistula. Treatment was begun immediately. He received 1 grain (0.065 gm.) of emetine hydrochloride twice a day for four days. A quarter of a gram of carbarsone was given at the same time and administration was continued for an extra day. Atabrine, 0.2 gm., was given concurrently three times daily for the first forty-eight hours and then 0.1 gm. three times a day for six more days. By the fourth day the patient's temperature was normal. His coughing promptly decreased so that by the ninth day after admission to the hospital expectoration ceased. Immediately after completion of the course of carbarsone he was given 0.5 gm. of diodoquin three times a day and this treatment was continued for a week. At the end of that time a second course of emetine and carbarsone was given. The thoracic condition healed promptly and at the completion of the two courses of treatment three stools examined on as many days were free of parasites and ova. Before the final stool examinations he had also had a course of treatment with hexylresorcinol to rid him of his hookworm.

COMMENT

Some physicians may feel that the importance of amebiasis has been overemphasized. Be that as it may the evidence indicates that this disease has been somewhat neglected in the United States. If a cross-section of the various statistics given is accepted, it is probable that 10 per cent of the American people are afflicted by amebiasis, that is, 15,000,000 Americans. Well, someone will say 10 per cent is probably much too high. All right, let me cut that figure in two, that would still leave 7,500,000.

The argument used by some medical men that amebiasis is simply too widespread to permit adequate diagnosis or treatment of all its victims is not overly impressive. It should be remembered that within our lifetime, recognized medical authorities considered malaria a hopeless problem. It was not so long ago that the idea of locating and treating every victim of hookworm, pellegra and the venereal diseases was considered an impossibility.

Cardinal points for the extermination of amebiasis are (1) consciousness of the disease by the everyday practitioner of medicine, (2) laboratory examination by properly trained personnel, (3) adequate treatment of all so-called carriers, (4) control of water supply, and (5) elimination of insects which are transmitters.

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THE W. P. SHAHAN MEMORIAL SCHOLARSHIP

Mr. Wellington Porter Shahan, for 18 years executive secretary of the Illinois Tuberculosis Association died November 21, 1947. Following his graduation from Brown University, Mr. Shahan entered tuberculosis control work, and this was his principal interest until his untimely death. He was invariably cooperative with the medical profession and with the Illinois State Medical Society, and he attended many annual meetings of this Society, and usually with a tuberculosis control exhibit. He was an invariably serious gentleman and tuberculosis control was ever uppermost in his thoughts. He worked for the Glackin Act which provides for the development of county sanatoria for the care of tuberculosis patients.

In memory of their former executive secretary, the Illinois Tuberculosis Association in 1948 established the W. P. Shahan Memorial Scholarship. The purpose of the fund is to assist outstanding students interested in pursuing graduate study, in the field of public health. An annual scholarship will be awarded for a full course of study leading to a degree in Public Health at an accredited school of Public Health.

Rules and regulations can be procured from the Illinois Tuberculosis Association, 730 South Sixth Street, Springfield, Illinois. Application forms are likewise available and will be sent to those desiring them.

Present Status of Goiter—Simplified Thyroidectomy

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The purpose of this paper is to discuss briefly a number of factors having relation to surgery of the thyroid gland and to describe a simplified technique of thyroidectomy. These ideas and procedures have come to be adopted over a period of twenty years as a result of training, reading, of observations at various medical centers and clinics, and consequent on personal experience. No attempt is made to claim originality.

The following classification of goiter is probably generally accepted:

1. Simple colloid goiter—this condition occurs in young people and presumably results from iodine deficiency.
2. Nodular goiter
 - A. Adenomatous goiter—nontoxic
 - B. Adenomatous goiter—toxic
 - C. Fetal adenoma—a circumscribed nodule in the thyroid gland consisting of embryonic follicles.
 - D. Iodine hyperthyroidism—originating in nontoxic adenomatous goiter.
3. Diffuse toxic goiter—also known as exophthalmic goiter and Graves' disease.
4. Mixed toxic goiter—thyroid gland showing adenomatous and diffuse toxic elements.
5. Woody thyroiditis—(Riedel's struma)—originates as a perithyroiditis which leads to an ischemia of the thyroid gland. (De Courcy[1])
6. Lymphoid goiter (Hashimoto's struma)
7. Malignant goiter
 - (1) Carcinoma
 - A. Malignant adenoma (nonpapillary carcinoma) angioinvasive—includes many forms of cancer.[2, 3]
 - B. Papillary adenocarcinoma—grossly and microscopically papilliferous—unencapsulated—lymphangioinvasive.
 1. Lateral aberrant thyroid—papilliferous structure—now considered metastatic.
 - C. Scirrhus carcinoma—sparse cellular elements in a predominantly fibrous tissue field—unencapsulated—may or may not originate in adenoma—lymphangioinvasive.
 - D. Benign metastasizing goiter—must be considered malignant despite benign course or structure of the metastasis. Metastasis may show normal thyroid structure. It is believed that numerous serial sections of the thyroid gland would often reveal a small primary lesion not discoverable clinically.
 - (2) Sarcoma
 - A. Lymphoma
 - B. Spindle-cell sarcoma

Indications for surgery include:

1. All forms of nodular goiters—nontoxic and toxic
2. Diffuse toxic goiter and mixed toxic goiter
3. Malignant goiter
4. Woody thyroiditis

Surgery of nontoxic goiters is based on:

1. Relief of pressure
2. Prophylaxis of carcinoma
3. Prophylaxis of toxicity
4. Cosmetic reasons

The usual incidence of carcinoma arising from nodular goiters has been described as varying between 2.7 to 8%.[4] The recent findings at the Illinois Research Hospital[5] in Chicago of a 17.1% incidence of carcinoma in nontoxic nodular goiters refer to a group of neglected and advanced goiters, but as such serve as a control in suggesting the increased incidence of carcinoma in neglected nodular goiters. This study would seem to give greater indication for surgery in this type of goiter. Solitary nodules in particu-

Read before North Central Illinois Medical Association, La Salle, Illinois, November 3, 1949.

lar have been found to have a high incidence of carcinoma (24%) but in children the single hard nodule presents the greatest incidence of cancer (40%). The indications for surgery in toxic goiters are self-evident despite the admitted and valuable results obtained by the various antithyroid drugs and by radioiodine. In clinically recognizable malignant goiter, on account of hematogenous as well as lymphatic spread, the surgeon should make sure that no metastases exist especially in the lungs or bones, before advising surgery. In identifying carcinoma of the thyroid gland, look for the so-called small Delphian nodes (1-4) not infrequently located in the upper substance of the thyroid near the crico-thyroid ligament. The same nodes may be present in thyroiditis.[6] In an indicated case, radical thyroidectomy is done on the affected side with intensive x-radiation therapy to follow postoperatively because of the known and sometimes surprising radiosensitivity of some thyroid carcinomas.[7, 8]

PREPARATION

Nontoxic nodular goiters—No preparation is necessary.

Malignant goiter—Measures to improve general debility, which may have resulted from dehydration, anemia, nutritional deficiency, etc., should be applied before surgery.

Toxic goiter—Duration of preparation will depend on the degree of toxicity, the height of the basal metabolic rate, the condition of the heart and of the circulatory system. Average case requires preparation 7 to 14 days. Some severe cases may require months of preparation.

Diet—all cases are placed on a high protein, high carbohydrate, high caloric, low fat diet[9] with interval nourishing liquids. Purpose is to improve the condition of the liver which has been depleted of its glycogen content.

Protamine Insulin (U-20) 1 cc. hypodermically once daily in order to increase the desire for food.

Digitalis—is used only in patients with cardiac failure.

Lugol's solution—10 drops three times daily. This is used alone in mildly and moderately toxic goiters with B.M.R. of under plus 20.

Antithyroid drugs—Since 1943 these have attained increasing prominence. Thiourea has given way to thiouracil and this has been followed in succession by propyl thiouracil and methylthiouracil. More recent work has evolved 2′-6′ diiodothyramine and tetrabrom-thyramine (Cortell) which antagonize injected L-Thyroxin and thyroglobulin, and Astwood has determined that 2-mercaptoimadozole is about 10 times more active in antithyroid qualities than thiouracil and that its methyl derivative is about one-hundred times more active. In mild to moderate thyrotoxic states we have not used these antithyroid drugs heretofore but have relied on Lugol's solution entirely. In more toxic and highly toxic cases, propyl thiouracil has been prescribed for administration at home. We subscribe fully to the present opinion that the drug should be continued until the B.M.R. is normal and look forward with cautious anticipation to the use of the more active recent drugs in order to curtail the duration of the preparatory period. All the antithyroid drugs increase the size, weight and vascularity of the thyroid gland but Lugol's solution, started about 2-3 weeks before surgery, usually with discontinuance of the antithyroid drugs, brings about a definite decrease in size and vascularity and is considered a most important factor in the preparation for surgery. A close watch is kept for the possible development of agranulocytosis.

Limited activity—patient is allowed to be up four hours each day.

Gain in weight, improvement in nervousness, reduction of pulse rate and of the B.M.R. indicate that the patient is ready for surgery.

MEDICAL TREATMENT

Certain investigators (Astwood, Soley, Hertz)[10] have studied series of cases in which the method of treatment for thyrotoxicoses was limited to either antithyroid drugs or radioactive iodine. Favorable results have been obtained with either treatment but limitations and ultimate by-effects have been discovered which prevent these methods from becoming the choice over thyroidectomy. With propyl thiouracil cured and relapses have been found among the apparently cured. Duration of treatment is undetermined.

With radioiodine in Graves' disease, the results have been startling. A high percentage of cures have been reported, but 5.5% of failures have occurred. Some patients have been thrown into hypothyroidism and myxedema (8.5%). The danger of ultimate neoplastic degeneration pre-

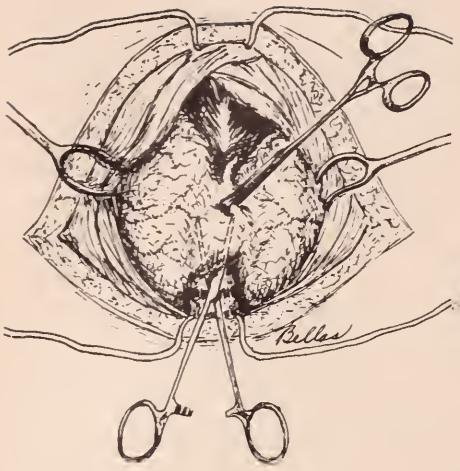


Figure 1

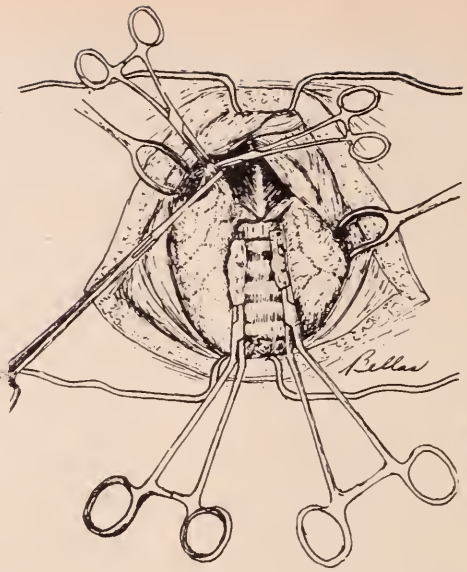


Figure 2

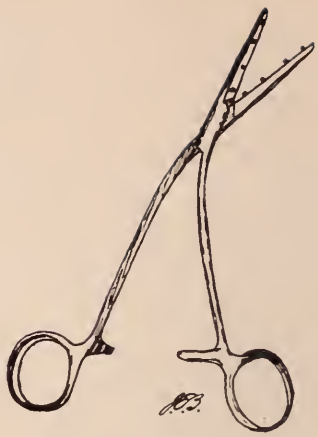


Figure 3

cludes its use in patients under 45. The failure of radioiodine in effective control of carcinoma also precludes its use in nodular goiters and even in diffuse toxic goiters that may have coexistent nodules because of the possibility of carcinoma being present in either. Although these methods may prove to be valuable and accepted, at the present time we do not know the percentage of recurrences, what complications may arise nor what neoplastic changes may occur in the future. The greatest usefulness of these methods lie in their utility as tests for study. This particularly applies to radioiodine (I^{131}) through which extent of iodine uptake can be measured with a Geiger counter.

Crotti[10] believes that children with Graves' disease should be treated by patience, x-radiation and Lugol's solution.

TECHNIQUE OF THYROIDECTOMY

General and specific details:

1. Anesthesia—Nitrous oxide gas and local anesthesia.
2. A higher transverse collar incision in large goiters as contrasted to routine incision for average goiters.
3. Use of interrupted nonabsorbable suture almost exclusively.
4. Routine use of Y-split Penrose drain to emerge from each thyroid gutter through the right side of the incision. This drain is to be removed in twenty-four hours.
5. Closure of the skin with Michel clips.
6. Surgical dissection is carried down to the exposure of the thyroid isthmus. At this point the first step is to undermine the isthmus, clamp it on each side of the midline with modified Mastin clamps and to divide between the clamps electrosurgically. I have found this procedure extremely valuable and to simplify the later management of each thyroid lobe. (Figures 1, 2, and 3). This step is not mentioned in Bartlett's original technic.[11]
7. Each lobe, usually starting with the right, is then freed laterally and inferiorly with accompanying ligation of the middle thyroid vein. The superior thyroid vascular pedicle is then isolated, doubly clamped, divided and ligated. I have given up ligation of the inferior thyroid artery and have had no good reason for returning to this procedure. Proper preparation of the patient has apparently eliminated pole ligation alone, but I always bear it in mind as a possible necessity. Dissection along the inferior pole of the thyroid gland should be undertaken cautiously in order to avoid injury to the recurrent laryngeal nerve. (Figure 2)
8. After the thyroid lobe has been rotated medially, four to six forceps markers are placed around the base of each lobe followed by the application of the rubber tourniquet of Bartlett[11] for hemostatic control. I regard this as an essential part of the technique. (Figures 4 & 5)

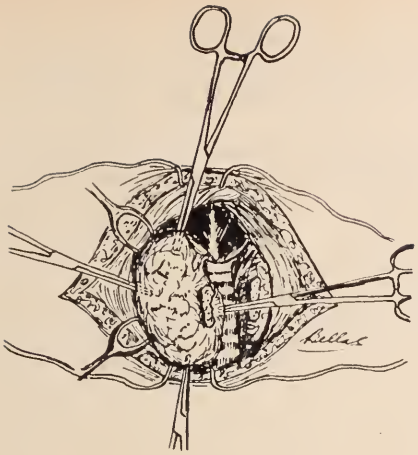


Figure 4

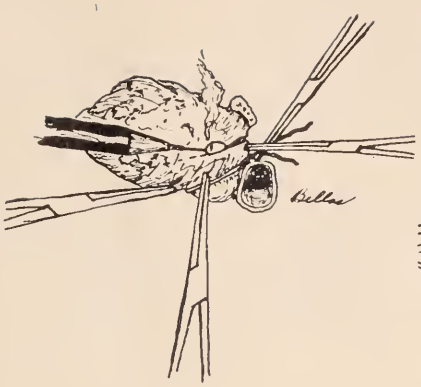


Figure 5

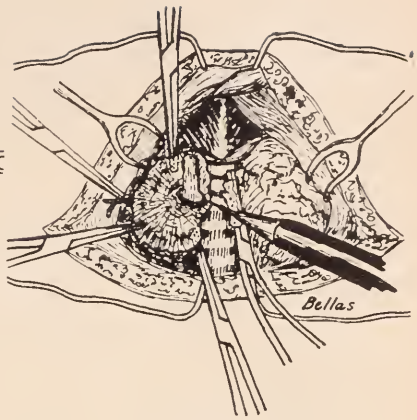


Figure 6

9. Electrosurgical section of the excess thyroid enlargement with subsequent removal of sections of the thyroid tissue with the electrosurgical loop, staying within the thyroid capsule.[12, 13, 14] By this means, as much thyroid tissue as desired or all of it, may be removed down to the thyroid capsule without endangering the recurrent laryngeal nerves or the parathyroids which lie outside the thyroid capsule. In toxic cases I leave some thyroid tissue on each side, a thin layer attached to the posterior capsule, but in malignant cases I try to leave no tissue at all, especially on the affected side. With regional lymph node metastases a radical neck extirpation operation should be done on the affected side. Very few forceps are used with the above technique and if care is taken to prevent the tourniquet from becoming undone there is very little or practically no loss of blood. (Figures 5 & 6)
10. The remaining stump of the thyroid lobe is sutured by a deep continuous and then by a superficial suture of No. 00 chromic catgut. The tourniquet is then removed. Elsewhere, interrupted nonabsorbable suture is used. We use Plastigut.[15] (Figure 7)
11. The prethyroid muscles are united by interrupted sutures of Plastigut. I do not suture the platysma but apply Michel clips for the skin edges only, allowing the Y-split Penrose drain to emerge in the interval between clips, on the right side of the incision. (Figure 8)

Postoperative care:

Nontoxic cases require only routine orders.

Tracheotomy at the time of operation or postoperatively is done for tracheal obstruction on the least provocation.

In toxic cases, 30 drops of Lugol's solution in one ounce of water are injected per rectum immediately upon return to the patient's

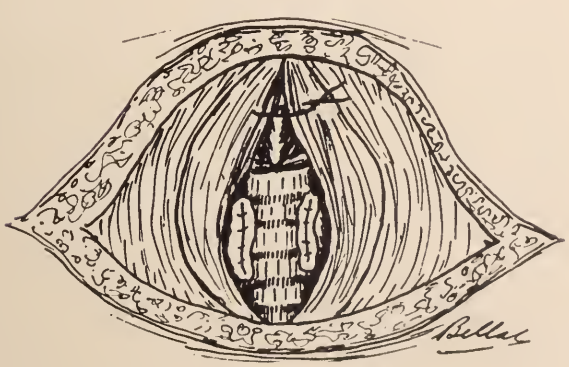


Figure 7

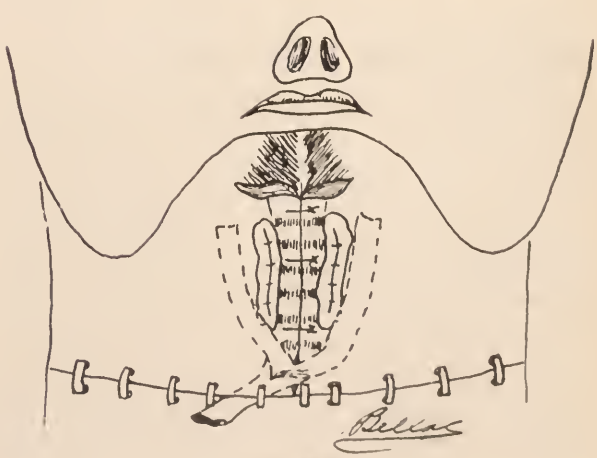


Figure 8

room. Continue with 10 drops of Lugol's solution by mouth three times daily.

Tincture of benzoin compound inhalations are administered continually for the first three days.

Force fluids to keep the muscles of deglutition limber.

Oxygen if necessary.

Sodium iodide is given intravenously for severe toxic cases for the first 36 hours.

Remove the drain in 24 hours. Probe drainage tract whenever necessary for collection of serum.

Dihydrotachysterol, milk and calcium are prescribed for tetany.

Chair when desired.

Remove the Michel clips on the 4th day. Home on the 5th day and then report to office.

427 Jefferson Bldg.

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THERE'S MORE THAN ONE

If penicillin were a panacea or if it were the only antibacterial agent at our command, one might be justified in giving it for all kinds of infections and awaiting the result without attempting to find the cause, but the limitations of penicillin noted above led to a search for new antibiotics and in the last few years several have been found, notably, streptomycin, bacitracin, aureomycin and chloromycetin. None of these is so completely free of toxicity as penicillin, but each one is able to control infections which have resisted penicillin in doses which are safe to use. For this reason the doctor is not giving the patient the benefit of the best that we have to offer, if he does not consider the use of these other agents and make them available, if they are more potent against the causative organism than penicillin. *Excerpt, The Intelligent Use of Antibiotics in the Prophylaxis and Treatment of Surgical Infections, Frank L. Meleney, M.D., Associate Professor of Clinical Surgery, College of Physicians and Surgeons, Columbia University, and Associate Visting Surgeon, Presbyterian Hospital, New York, New York Medicine, December 20, 1949.*

Practical Difficulties in Defining the Word "Normal" in Medicine

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Edited by:
William R. Best, M.D.
Max Samter, M.D.

Dr. Ratner:—I would like to impress upon the audience that we should not approach this problem as one of semantics or terminology, but rather we should attempt to see if we cannot arrive at a definition of "normal" which would correspond to our knowledge of common sense reality. There are two realities associated with the term "normal" which I should like to illustrate with several examples.

If the majority of surgeons in a given hospital remove mostly undiseased appendices in the treatment of R.L.Q. pain, and the minority of surgeons mostly diseased appendices, we can ask ourselves two questions: What do surgeons characteristically do in this hospital: and secondly, what characterizes a surgeon? Obviously, the overall statistics do not answer this second and more fundamental question.

Again we might consider the incidence of large and small necks in the Great Lakes area before the days of iodized salt. Perhaps 70% of the individuals would have large necks and 30% small necks. Two questions may be asked. First, what size neck characterizes this locality and secondly, what size neck is most advantageous to the individual.

The first question of each of these examples concerns itself with the statistical approach to the situation in which a quantitative characterization of the example is attempted. The second question is not answered by statistical analysis, nor is a quantitative answer applicable. Thus, though undiseased appendices are mostly removed, is the norm of a surgeon the fact that he removes undiseased or diseased appendices? Again, we cannot say that a large neck is more advantageous to the individual just because 70% of the people in the locality have large necks.

Stating it in another way, there are two realities which we are attempting to define. One, the relation of function to design. This constitutes the basic differentiation of normal from abnormal. Two, that reality which typifies the behaviour of like individuals. This lends itself to the statistical approach and gives us the average which from its literal derivation means "towards the truth."

The question of relation of function to design can often be answered without a large number of observations. Let me give you an example which precludes the possibility of an average because we will only deal with one specimen. An individual from Mars lands on earth for the first time and observes an acrobat walking on his hands. He notes several things: the legs though heavier and more muscular are not being used for support; the acrobat faces backward while he walks forward; the distance sense receptors, the eyes and ears, are stationed close to the ground thus limiting their range; that the outlets for excrement were so located that the feces and

urine would pass over the head before coming to rest. Surely the Martian would stride over to the acrobat and right him, saying, "Listen you fool, this is the way you should be walking."

A second example concerns itself with a delivery I recently saw televised at a medical meeting. This was entitled, The Normal Delivery. Anaesthesia was used, an episiotomy was performed, and the child was delivered by low forceps. The mother probably had to be told several hours later that she had a baby. This delivery, however, is only an average or typical delivery as performed by a metropolitan specialist. If this were a normal delivery, then almost all of the deliveries through the centuries have been abnormal, and Grantly Dick Read is encouraging a return to abnormality.

Again, in certain urban areas 90% of the babies are formula fed. However, as Oliver Wendell Holmes puts it, a pair of substantial mammary glands certainly has its superiorities over the two hemispheres of the most learned pediatrician's brain in the art of compounding and delivering a nutritive fluid for infants.

Again, Kinsey in his Report states that there is no such thing as normal and abnormal in a scientific vocabulary (though he uses the terms throughout the book). Rather, he states, that each individual is characterized in his sexual activity as a position along a (mathematical) curve. For him, homosexuality is merely a "matter of choice." He attempts to substantiate this with data giving the incidence of homosexuality in various groups. Thus, he would consider such homosexual behavior as a point along a curve rather than a matter of normal or abnormal. Obviously, if we define normal according to the relation of function to design, such an attempt to include such behaviour as normal and merely as a matter of choice, is out of the question. The complementary role of two sexes in a biological species is evident.

In our medical teaching, we have been repeatedly impressed with the dogma that the normal (as well as the concepts of health and disease) is a matter of opinion. This is false because if physiological and pathological situations are to be adquately understood, the concept of normal must be precisely identified according to the principles of relating function to design.

Now health is not simply the absence of disease. It is a dynamic state which may vary independently of disease. Thus, a lean (withal curved) woman with good musculature and a hemoglobin of 16 gms. is sharply differentiated in her health from the fat-layered, flabby woman with a hemoglobin of 12.5 gms. Neither of them is diseased by any ordinary standards of medicine but one has superior health.

Of the three ends of medicine, there are two of which we are all cognizant, curative and preventive medicine. The third, of which we are less conscious, is the promotion of optimum health, viz., perfective medicine. Like preventive medicine, perfective medicine deals with healthy individuals or healthy parts of the body.

The Hippocratic order of treatment was first regimen, then if need be medicine, and lastly, if at all, surgery. In this order regimen includes, diets, exercise, rest, etc., and most directly pertains to perfective medicine. Regimen is usually regulated according to our concept of a normality we would like our patients to achieve. However, those standards which we have set as "normal" are often not true norms but rather averages of many individuals of varying health.

A striking example of this is found in our weight tables. It has been determined by mortality statistics from the life insurance companies that the optimum weight after early adulthood is actually 10% below the "standard" (average) weight. Thus overweight is the number one nutritional problem in this country today. We keep our dogs at better weight without "standard" weight charts, than our patients whom we mislead by misleading "standard" weights. Our standards of the physical condition of musculature, although not precisely defined, are probably far from the true optimum. For instance, think of the physiology and the anatomy of the optimumly exercised heart as compared to the poorly exercised.

Another striking example is standards of "normal" hemoglobin, particularly in women. Just because average women have lower hemoglobin than average men and have a greater variability does not mean that these hemoglobin levels and ranges are normal. The question remains do they have the optimum hemoglobin (and therefore optimum O_2 carrying power) which the red blood cells will permit?

Thus I believe that the definition of normal in medicine should not rest on statistical evaluation of large numbers of average individuals but rather on a critical analysis of the relation of design and function. A proper working concept of normality can contribute much in the daily practice of medicine.

Dr. Lendrum, Assistant Professor of Medicine:—I agree that we only befuddle ourselves and mislead others when we apply the normal both to a statistical judgment and to a value judgment. Mathematics has such terms as mean, mode, median, range, binomial distribution and probability curve, among others. These statistical terms are clear and specific and make the ambiguous word normal unnecessary in statistical descriptions. C. Daly King, in 1945, suggested the word paradic to take the place of the term normal in the specific sense defined by Dr. Ratner.

It may be profitable to discuss further the problem of optimal weight. Insurance companies have determined that the group of adults who keep their weight at that figure which would be average at the age of twenty-five has the longest survival. In this case, longevity is the yardstick.

However, since ours is an economically competitive society, one might use money as a yardstick. Plausibly, we might study the weights of corporation presidents in an attempt to find the optimal weight. Unfortunately, I did not have a statistically adequate number of corporation presidents as patients when I was in private practice. Comic strips in the popular press, however, suggest that their weight greatly exceeds the average. If this is true, our economic yardstick might give a very different set of optimal weights than that derived from life expectancy tables. Similar standards of optimal weight can be derived from many other purposes and be valid for each purpose only. I believe that we should scrupulously avoid the term normal in scientific writing and rather define exactly what we mean in precise terms.

Dr. Last, Assistant Professor of Pharmacology:—Oliver Wendell Holmes once said, "It is better to define the obvious than elucidate the obscure." We should be precise in saying what we really mean. What we term as normal is in actuality, a range or a spectrum of values, therefore, we should say normal range or average range. In such an exposition, we should also be concerned with the variability within this range and give an idea of the magnitude of this variability. The use of the normal range is inadequate in that we convey no idea of the dispersion within this range. The most accurate measure of variability of dispersion within a normal range is the standard deviation. This is not the place to go into the mathematics of this statistical concept, but I merely wish to state again that in speaking of so-called normal values we should precisely define the mean and the dispersion of our observations.

Dr. Grossman, Associate Professor of Clinical Science:—Dr. Ivy who has written extensively on this subject has reached some conclusions concerning the fact that there are two ways of considering normality. Thus, he considers the "statistically normal" as being the statistically usual and defines the "physiologically normal" as the value or function within a range that does not interfere with other functions of the body.

Dr. Ratner:—I agree wholeheartedly with Dr. Ivy's differentiation. However, I believe that the latter should be somewhat extended so that the physiological normal should take into account the optimum of health. With regard to Dr. Lendrum's discussion of normals being defined according to the yardstick used, I might state that in medicine the yardstick is the prolongation of life and the maintenance of optimum health, and that about this there should be no argument. As regards Dr. Last's comments, normal is not an ideal in the sense of something we can strive for but can never achieve, and it is not a subjective evaluation. Normal, as I have defined it, is a concept that corresponds to an objective reality. Some of the confusion rests with the fact that the average becomes equal to the normal when the average is taken on normal things. But you cannot prove by averages that the things you averaged are normal.

Working With All Other Committees of the State Society

Percy E. Hopkins, M.D.
Chairman, Committee on Medical Service and Public Relations
Illinois State Medical Society
Chicago

The Illinois State Medical Society, I believe, was the first state medical organization to recognize the need for some sort of planned effort to influence the public attitude favorably toward the medical profession. Until that happened the medical profession in Illinois, like all others probably, had gone about its work serene in the belief that all was well and for the most part unconscious of the forces shaping up to attack it. Since then, in Illinois, we have developed our program, passing through the various phases of health education and general efforts to make the public friendly toward medicine to the present concentration on compulsory sickness insurance. I should like to take a few moments to review the story briefly, for I think you will find it of interest.

Our experience goes back 26 years to 1923. A year or so before that time, the woman editor of a community newspaper published on the southside of Chicago, a patient of Dr. James H. Hutton, made a survey in which some 6,000 people were questioned concerning their attitude toward medicine and their procedure when ill. She found among other things, that a large proportion of those responding consulted druggists, osteopaths, chiropractors and other non-medical assistance before consulting a doctor of medicine. The implications of this and other findings shocked Dr. Hutton and various other leaders of the profession at that time and the lady was invited to present her findings before the annual meeting of the State Society and publish them in the *Illinois Medical Journal*. There was considerable discussion about what to do about it and it was decided that some effort to educate the public on the need for early medical consultation in illness should be undertaken. Some $12,000 in volunteer contributions were made to the work and since there was no pattern to be followed and no professional consultation was available, or considered, there was long debate as to how the purpose should be achieved. Finally a committee known as the Lay Education Committee was established and the woman who had made the original survey was engaged as its secretary. For a while her principal activity was placing speakers on medical subjects before lay groups and preparing simple statements on health problems, urging early medical attention and periodic health examinations which were distributed to the newspapers throughout the state.

This was well received and this work is still carried on by the committee now known as the Educational Committee.

In the meanwhile, however, the public began to heed our advice, but, when they asked their doctors to make periodic examinations, many of the medical men simply laughed and refused co-operation. It was realized, therefore, that some effort had to be directed to the profession as well. Another committee, known as the Scientific Service Committee, was therefore set up to provide speakers on scientific subjects for component branch or county societies. This work has since been expanded by the creation of still a third committee known as the Postgraduate Education Committee, whose function is to plan each year a series of twelve one-day postgraduate conferences led by top speakers in various parts of the state.

With these experiences in the background, Illinois was quick to realize, as the late war drew to its close, that the forces threatening the health of the nation and the welfare of the medical profession through compulsory sickness insurance had developed strength that required

Presented at The Second Annual A.M.A. Public Relations Conference, Chicago, Illinois, Saturday, November 5, 1949.

a major defensive effort. The proposal for a full-scale public relations program was therefore readily accepted and the present Committee on Medical Service and Public Relations was established in 1945. The functions of a long established committee on legislation were incorporated in those of the new committee. It is the public relations work of that committee I am discussing here today. This committee consists of three members appointed by the Council of the Society with the president and secretary ex officio. Its staff consists of an executive secretary and a director of public relations, plus necessary office help.

Those of you who have given time and attention to this problem will recognize that Illinois, in its twenty-six (26) years of experience, met and faced long ago the problem which everyone new to the work is surprised to find — that the first effort of a public relations program must be directed at our own membership. It is clear, too, that we establshed long ago techniques and channels that serve us well today. In the expansion of our effort in the last four years we have been first to face additional problems, notably the establishment of a suitable list of able speakers and their education in this subject.

Within two weeks after the last interim meeting of the House of Delegates of the American Medical Association in St. Louis, we held a planning conference to outline our program. In February we had our first Speakers' Training Conference and in September our second. In the meanwhile, our Speakers' Bureau has been developing and functioning throughout the state and despite the summer lull we have held several hundred meetings at which our speakers explained our position and sought public support for it. In the meanwhile, too, a system of loose-leaf mimeographed cards containing speakers' notes on all phases of the insurance problem have been developed and are not only used by Illinois speakers but also form the basis for speakers' training programs in some thirty other states.

The moral of this story is, of course, that, if other states had enjoyed the services of men like Dr. Hutton and those who supported him 26 (twenty-six) years ago, organized medicine throughout this great nation would have been in a much stronger strategic position when the major attack came. Illinois has put much time, energy and money into its public relations work, but I believe now that all our members realize how fortunate that we did so and there has been no complaint about the funds thus expended.

Now how does our Committee on Medical Service and Public Relations function?

THE COMMITTEE MAKEUP OF THE SOCIETY

The Illinois State Medical Society, like most medical societies, performs most of its functions through committees, under the authority, of course, of its House of Delegates, Council and officers. The public relations committee, constituted as it is to present the Society and its work in the most favorable light, must and does work in closest cooperation with those committees whose functions lend themselves best to the purpose of the public relations program.

Only by so doing can the committee or its agent remain informed of the progress of the various programs, contribute anything to them, make them public as part of its work, or raise the question of public relations in the various subjects considered. The work of some committees, however, is of such a nature that it has little interest for the public or is a part of the private business of the medical profession of Illinois. The public relations effort in Illinois, therefore, is not so difficult as might be expected from the fact that the Illinois State Medical Society has a total of 39 committees. Seven are standing committees, five of them elected by the House of Delegates. The Committee on Medical Service and Public Relations itself is a standing committee, but is appointed by the Council. Three committees are appointed by the Council and eight advisory committees and 21 (twenty-one) committees for state-wide work appointed by the chairman of the Council. This formidable total can be discounted immediately, however, by eliminating such agencies as the Executive and Finance Committees, and the like.

The work of a number of other committees, furthermore, offers a minimum amount of material suitable for public consumption and they can thus also be eliminated for practical purposes. This category includes such groups as the Committee on Scientific Exhibits and some of the advisory committes to public bodies and the Journal Committee. Perhaps each of them will produce a news release once a year.

Still another group, including such agencies as the Committee on Medical Education, the

committees on the control of various diseases, the Ethical Relations Committee, the Committee on Medical Economics, the Committee on Military Affairs and Emergency Medical Service. produce relatively few stories, but close contact must be maintained with their work to assure that nothing is lost that may have value for our purpose.

These discounts leave us with a fairly small group of committees which may be depended on from month to month to produce a substantial number of news stories or to seek consultation from the public relations agency. The Committee on Veterans' Administration, through which our program for the home care of veterans is administered; the Committee on Medical History, now engaged in collecting historical material from all over Illinois; the Postgraduate Education Committee whose work as far as the public is concerned produces better medical care; the Committee on Rural Medical Service, which administers the state-wide program in cooperation with the Illinois Agricultural Association for the expansion and improvement of rural medical care, including our medical students' loan plan; and the Committee on Voluntary Prepayment for Medical and Surgical Care, which needs no explanation — all fall into this group. In our work we do not regard the origin of the committee, that is, whether it is a standing or advisory committee or a special committee. Our service is on call for any effort that will aid the common cause.

WORKING WITH COMMITTEES

Concerning the nature of our relationship with these important groups, it is difficult to be specific. We try to keep in touch with other chairmen to determine which of their activities are suitable for our purposes and go into action when such material becomes available. This is done by personal contact with the chairmen or a member or by scrutiny of their reports to the Council or the House of Delegates as the case may be. The chairmen or members of the Committee on Medical Service and Public Relations or the director of public relations may undertake this function.

That does not necessarily entail attendance at meetings of these committees. Where the work of the committee is continuously productive of material of public interest, as in the case of the Committee on Voluntary Prepayment Insurance, either or both the chairman of the Committee of Medical Service and Public Relations and the director of public relations is usually in attendance. Otherwise information received from the chairmen is regarded as sufficient. There are no set rules on this. The decision as to attendance at any given committee meeting depends on the situation at the time. It would be futile, I believe, for the chairman or the director of public relations to try to attend every committee meeting. It is probably true that most committee meetings do not produce material of interest to the Committee on Medical Service and Public Relations and the demands on the time of the chairman would be overwhelming. A check with the chairmen before and after the meetings of these committees is sufficient in many cases.

At the same time, the various committees are at all times free to call on the services of the Committee on Medical Service and Public Relations spontaneously as they please, and they often do so. The Committee on Medical Service and Public Relations, by its very nature, is sometimes able to initiate or aid projects of the various committees and to offer consultation as to the best methods of presentation from the beginning. There is nothing binding about this, of course. The Committee is anxious to avoid even the appearance of attempting to control the decisions of other committees.

We also work with various committees of component societies on local medical problems. A good example of this is the Tuberculosis Control Committee of the Chicago Medical Society, confronted with a difficult public relations problem. Our office suggested and helped recruit nearly 70 (seventy) labor, women's, civic, and other lay groups in a tuberculosis eradication committee, which in turn lent the weight necessary to obtain a thorough going rehabilitation of the local tuberculosis sanitarium and to get an effective tuberculosis control program through the Legislature.

At the same time we have worked also with other lay groups, notably labor unions, in helping them solve problems which had medical aspects. Special committees have been assigned to this work by the Society, but the services of the Committee on Medical Service and Public Relations have been called on to back them up.

Cooperation received from the individual Society committees will vary considerably. Some committee chairmen are extremely helpful, others less so. That is not because of unwillingness, but because many medical men have not yet come to think in terms of group public relations and do not realize that the work they are doing so earnestly and sincerely has possible material value to the public relations effort of the Society. That is why it is necessary in many cases to make a specific check rather than to depend on a report from the chairmen. On the other hand, many chairmen are conscious of the educational value of their work and will volunteer information and suggestions.

It is also a source of satisfaction to point out that our relationships with officers and Council of the Society and through them with the House of Delegates are friendly and cooperative. Our president and secretary are ex officio members of our committee and thus continuously familiar with our work and participants in our decisions. The chairman sits in regularly with the financial and executive committees. He and the director of public relations and the executive secretary sit with and report directly to the Council. Our president-elect and the chairman of the Council attend all our meetings. Thus by a series of personal and official tie-ins, we obtain both their advice and support and eliminate much complicated maneuvering. The chairman of the Educational Committee also attends all our meetings, thus tying in his work with ours. Our operations, I believe, comprise a sound working arrangement, built up over many years.

In our experience, there has been no friction among the different committees. For one thing, the functions of the various committees have been defined fairly clearly and for another, the chairman and members of the various committees have never failed to give full support and encouragement to the Committe on Medical Service and Public Relations. This, I believe, is very important. Our committees are small, active and extremely cooperative. This eliminates possibilities of friction and any overlapping of areas of responsibilities and speeds up cooperation generally. Both chairmen and members of various committees are always free to come to the public relations chairman or director with ideas and suggestions and by the same token the chairman and director of public relations never hesitates to make any suggestions to the chairmen of the committees that might contribute to the public relations program of the Society.

All things considered, I may say in conclusion that we have a reasonably efficient and effective public relations setup in Illinois, working with a minimum of friction. I believe that our long experience in this work and the enthusiastic spirit of cooperation and mutual trust and confidence among all concerned are the principal elements in the establishment of this satisfactory situation. We passed through our early period of conditioning our members and the public long ago and, as a result, all our numerous programs are at present, at least, working smoothly.

PREMENSTRUAL TENSION

. . . Premenstrual tension is associated with salt and fluid retention. During the latter half of the menstrual cycle there is a weight gain and sometimes slight edema. Symptoms of nervousness, irritability and headaches are often noted. All of the symptoms including the edema disappear promptly with the onset of menstruation. There is no hormonal treatment for this condition, but symptoms may be alleviated by restricting the salt and fluid intake. Ammonium chloride is also useful to help remove the edema. *Excerpt: The Use and Abuse of Estrogens, Jean Paul Pratt, M.D., F.A.C.S., Surgeon-in-charge, Division of Obstetrics and Gynecology, Henry Ford Hospital, Detroit, Medical Annals of the District of Columbia, January,* 1950.

A New Analgesic Combination for Routine Use in Control of Pain

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The admistation of narcotics for relief of pain has been regarded as a blessing by the sufferers; yet there has been much unhappiness produced when addiction or habituation has resulted from continued use. There are many instances when a patient suffers a pain or discomfort which requires very little raising of the pain threshold to give him a comfortable existence. It is extremely difficult to measure the intensity of pain. The fact that it is a purely subjective manifestation places it at a speculative level. One is often astonished by the persistence of pain despite very large doses of narcotics, and again, one may be equally surprised at the immediate relief of apparently severe pain by rather small doses of narcotics or analgesics.

The problem of pain control in surgical practice is one of the major hurdles of this specialty. Almost every patient suffers some degree of pain after operation. The promiscuous employment of habit forming narcotics has led to disastrous consequences so frequently that one need not be reminded of the necessity of avoiding the use of habit forming drugs when possible. It is very difficult to separate the narcotic value of a drug from its analgesic value. In one instance the patient does not show signs of active suffering because he goes to sleep and makes no mention, or gives no evidence of his suffering. When analgesics are used the patient has greater pain relief with little or no sleep producing effect. There are times when sleep and rest are of tremendous importance to the body's economy. In such instances, narcotics are definitely indicated and should be given. Again, the question of sleep and rest is of minor importance. In these conditions, analgesics may serve as well as narcotics. Some patients, especially elderly people or children, might be harmed by a narcotic. Patients who have had surgery performed on the mouth, tongue, or neck would be less likely to aspirate blood and mucus if narcotics were avoided. In these patients, analgesia may be all that is desired. In bone and joint surgery, analgesics are much less likely to upset the patient's general health than narcotics.

For some time, various salicylate preparations have been employed for their analgesic effect. It has been found that thereapeutic effects can be obtained by oral absorption of a combination of acetyl salicylic acid and benzosulfimide.* The results obtained following sublingual administration of this compound have been very dramatic, so much so that it can be concluded that such results could hardly have been produced so rapidly if the salicylate mixture had had to reach the blood stream by the intestino-portal pathway. We have felt that this combination reaches the blood stream by direct absorption from the sublingual, buccal and pharyngeal walls, thus short-circuiting the much longer intestino-portal route. The rapid effect may be similar to the instantaneous effects produced by sublingual administration of nitroglycerin. It has been suggested that acetyl salicylic acid in the blood stream is responsible for the more rapid analgesic effect.

These experimental findings are interesting, and though they cannot be explained satisfactorily, the clinical observations have been so impressive that it is felt that they should be recorded in this preliminary report in order that others may avail themselves of this simple therapeutic measure.

The combination of acetylsalicylic acid and benzosulfimide makes the mixture palatable, but

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*THERYL is a trade name for this combination. The material for this study was supplied by the Church Chemical Corporation of Chicago, Illinois.

additional value resides in the fact that it can be given by mouth without the simultaneous administration of fluids. In patients who have had surgery of their gastro-intestinal-tract, the oral administration of fluids is usually interdicted.

Sublingual administration has been found extremely helpful in patients who suffer the usual pains and discomforts of surgery. These tablets may not entirely eliminate the need for narcotics but they may supplant narcotics in a great many instances.

CONCLUSIONS

1.—An analgesic compound is presented which can supplant in many instances the use of narcotics.

2.—The instantaneous effect of this drug probably results from direct absorption from the mucous membranes of the mouth, pharynx, and hypopharynx.

3.—Oral absorption is particularly desirable in patients who cannot have fluids by mouth.

4.—The therapeutic effect is probably due to acetyl salicylic acid, which is absorbed more rapidly and efficiently as a result of its combination with benzosulfimide.

5.—The non-habit forming character and low-toxicity of this combination gives it a wide scope of usefulness.

The Peoria Visual Screening Project

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Peoria

Vision is an important asset to education.

With this idea in mind, the Peoria Visual Screening Project was initiated in the fall of 1948 after many preliminary meetings of interested groups. The primary purpose was to determine the school children who had visual problems and what could be done about them. A vision screening program was decided upon as the best method.

It is obvious that, to promote a successful program, all the groups and individuals who are concerned with the education and vision of children must cooperate, i.e.: parents of school children, educators, and the ophthalmic professions. Such a large program must be well coordinated and efficient in operation. It should consider all factors involved, for every part of it is important. It is only in this way that the child, the object of the program, will benefit.

The Planning Committee.—It then became necessary to formulate a plan to inaugurate the Peoria Project. At the invitation of Dr. David B. Owen, president of Bradley University, Mrs. Ben Humphries Gray, Executive Secretary of The Illinois Society for the Prevention of Blindness, presented the plan for school vision screening programs as developed by a joint committee of ophthalmologists and optometrists and subsequently approved by the Illinois State Medical Society and the Illinois Optometric Association. This method was adopted and a steering committee was appointed to carry out the program. The seven member committee was composed of representatives from the Peoria school system, parochial schools, Bradley University, ophthalmology, optometry, the city Health Department, and the Illinois Society for the Prevention of Blindness. Each group had its particular and specific part.

Dr. Melvin G. Davis, superintendent, and Dr. John H. Harris, assistant superintendent, assumed responsibility for the general administration of the program in the public school system and placed it under the Department of child welfare, with Mr. Milton Litterst, the director, as their representative.

The Reverend F. B. Blecke, diocesan superintendent, assumed responsibility for the parochial schools.

Bradley University volunteered to buy and supply the equipment, furnish students to administer the tests and assist in their training as technicians. Dr. Chester E. Sipple, dean of the University, assigned Bradley's part of the program to the dean of the School of Education, Dr. Manley E. MacDonald.

The professions represented were optometry, ophthalmology, and the City Health Department, Dr. E. K. Musson represented the City Health Department, Dr. C. S. Turner the ophthalmologists, and Dr. J. A. Potter the professional optometrists. It was their duty to act as consultants on all professional problems, and as liaison among professional groups.

Miss Mary Louise Royster, field representative of the Illinois Society for the Prevention of Blindness, was to represent the society.

Training Technicians.—The technicians were carefully selected students from the School of Education of Bradley University. A three day training course on screening techinque was given at the University by Miss Royster. It consisted of a complete standard procedure for testing. The students were instructed as to the handling of children and their limitations in acting as technicians for the screening program. The course also included lectures by representatives of Bradley University, the Peoria school system, the parochial schools, ophthalmology, optometry, and the city Health Department. In order that they might be informed concerning the program, the nurses from the City Health Department were invited and attended the course. The University accepted this instruction and the subsequent testing hours as a laboratory assignment for managing children and allowed the student technician five credit hours. It further more gave the students experience in vision screening which they may be called on to develop in schools when they become teachers.

The Operation Of The Program.—The steering committee passed on all policies, each representative giving his viewpoint as it pertained to his particular field. This was accomplished at numerous meetings which continued as the program progressed.

The students trained as technicians were under the supervision of Joseph McCoy, assistant professor of education. He arranged the school schedules and collected all data concerning the program. School principals prepared schedules for testing the pupils that would least conflict with the school routine, so that minimum time was lost from class work. Only a few students were sent to the testing room at one time. The testing instruments were so arranged that the student could not hear or see the other students being tested.

The principal sent out a letter in advance informing the parents their child would be tested. The parochial schools requested an extra line be added to the letter in order that the parent could sign and return it with their written permission. This was soon discarded, as it was found many of the parents did not return the letter, although they had no objection to the program.

A master sheet for each grade was filled out as the child was screened. When a school was completed, the children below minimum standard were given a referral form signed by the principal to take home to their parents. The parent, after the eye examination, requested the specialist to fill out the referral card. The doctor could do this without violating professional confidence, since the parent and child returned the diagnostic card to the school. The doctor's recommendations were recorded on the child's permanent health record. Following this the cards were turned into the child welfare department of the Peoria school system.

The professional men in the community channeled any questions concerning the program to the optometrist and ophthalmologist members of the steering committee.

Instrumentation.—The Massachusetts Vision Test was the instrument used for screening. This test does not approach a professional examination and the judgment a professional man uses in his own office. It is simply a gross screening method, testing five visual skills. The first tells only if the child's visual acuity is below 20/30. It is not diagnostic in any way. This has been referred to as the near sighted or myopic test. It may or may not be myopia. There are many reasons why a child's vision can be below 20/30. What should be done about this condition, if anything, must be determined by a professional man after a complete examination. The second test tells if the child has 20/20 vision through a plus lens. This may indicate a lens prescription is

TABLE I.

Grade	I	II	III	IV	V	VI	VII	VIII
Children with Visual Problems	25.1%	26.6%	29.0%	33.9%	33.08%	37.9%	37.29%	53.3%
Children Below Minimum Standard	18.5%	17.2%	18.18%	17.9%	17.7%	16.7%	16.46%	14.96%
Total Number Screened	2092	1835	1771	1651	1587	1457	1373	829
Ungraded	72 below minimum standard.							

(Note: The percentages of children with visual problems includes those who were below minimum standard in screening plus the children who had professional attention during the past year.)

needed, but again, this can only be determined after a complete examination. The last three tests consider the posture of the eye. These are muscle balance or phoria tests at far and near. A lateral and vertical phoria is taken at twenty feet and a lateral phoria at sixteen inches by means of the Maddox Rod.

In our screening program the child progresses until he first checks below minimum requirements. No further tests are made. If he is below the limits on any one of the tests, it is deemed advisable that a professional man evaluate the situation and a referral notice is sent to the parents. The technicians are instructed to make no comments to the child during or after the test. This prevents the child misinterpreting anything that might be said.

The children who pass the test are given no notice. It has been found that parents informed their child has passed the test assume that the child has good eyes and that good vision lasts forever. The children who have been under the care of an ophthalmologist or optometrist during the past year are not tested. The screening is limited in its scope and does not take the place of professional care nor should it be a check on it. The parent having sought professional care will respect the doctor's opinion. That is as it should be. It is important that the doctor obtain the maximum possible visual efficiency, but even this may not approach the standards of the screening test.

Care Of Indigent Children.—In any community there will be children in need of attention whose parents can not afford professional fees. The Peoria professional men volunteered their services and the Delta Beta Phi Sorority agreed to furnish the glasses. The principal of each school served as an advisor in these cases as it was felt he had reliable information concerning the families. If he recommended that assistance was necessary, a form was sent with the referral card to the child welfare department of the Peoria school system. These were referred to the professional consultants who rotated the cases between the ophthalmologists and optometrists.

Results Of Peoria Vision Survey.—A total of 12,667 students were screened in the Peoria public and parochial grade schools. There were 2,226 or 17.57% of the students below minimum standard, 53.07% of whom were boys and 47.93 girls.

The percentage of children with visual problems and below minimum standard for each grade is shown in Table I.

This table gives the results of the children with visual problems in each grade. The gradual increase from 25.1% in the first grade to 53.3% in the eighth grade indicates visual problems increase as the child advances in school. There are significant increases at the third, fourth, sixth, and eighth grade levels. The third grade student has more confining work. He is required to do more individual and less group study. The increase in visual problems may likewise be the result of visual concentration during the first two years of school. It has been acknowledged that in the sixth grade the student enters into extra curricular activity, such as library books, scouts, etc. There is an abrupt increase in the eighth grade. This may be associated with the adolescent stage where changes could be expected in vision as well as other bodily functions. It is also possible that as the child grows both the child and the parent are more conscious of visual problems, as they seek professional attention.

Of the 2,226 students below minimum standard 20.7% obtained professional care and re-

turned the referral cards by August 1, 1949. The results follow.

I.	Glasses Prescribed	54.7%
II.	Medical Attention Prescribed	1.6%
III.	Gross Pathology Diagnosed	.9%
IV.	Orthoptics or Visual Training	9.7%
V.	No Lenses or Treatment Prescribed	18.0%
VI.	Over Referrals	13.0%
VII.	Not Classified	2.1%

(Note: When both glasses and visual training were advised they were classified according to the more dominant factor.)

I. The lens prescription was not requested on the referral cards, therefore, a diagnostic report is impossible. This is recommended for future vision screening programs.

II. Over half of this group were recommended for referral to ophthalmologists by optometrists and several were advised to obtain general physical examinations.

III. These cases were separated from immediate medical attention necessary to determine the percentage of blinding conditions. Two cases were diagnosed as congenital cataracts, and two as traumatic conditions; however, it was indicated these had been previously diagnosed.

IV. Some men recognized the need for visual training more frequently than others. As a rule they described the conditions. This was true of both the ophthalmologists and optometrists.

V. This group consists of cases in which the doctor did not prescribe but recorded his reason or indicated there was justification for diagnostic examination. It was often mentioned that glasses were not advisable at this time and/or the student should be kept under observation.

VI. Where there was no definite reason recorded for not prescribing, the diagnostic cards were classified in this group. Some students were screened as below minimum standard on the phoria tests and the doctor only recorded vision 20/20. Possibly this percentage is a little higher than it would actually be if there were more definite information on the referral cards filled out by the professional men.

VII. These cards could not be classified. Where there was doubt they were put in this group.

COMMENTS

In this plan we supported the premise that coordination of medical eye care and optometric service is important for the success of the vision screening program — in accordance with the plan recommended by the Illinois Society for the Prevention of Blindness and approved by the Illinois State Medical Society and the Illinois Optometric Association.

A small advisory committee representing properly interested groups is essential. The representation of ophthalmologists and professional optometrists on this committee is of primary importance. Effective professional guidance can be given the program only when there is close supervision by these two groups and a common solution to professional problems which may arise. This, again, is in line with the recommendations of the joint state committee appointed by the Illinois Society for the Prevention of Blindness. This committee consists of Dr. Walter Stevenson, president of the Illinois State Medical Society, Dr. J. R. Fitzgerald, secretary of the Chicago Ophthalmological Society, and Dr. James F. Wahl, past president of the Illinois Optometric Association, Dr. Glenn H. Moore, past secretary of the Illinois Optometric Association.

The pattern set by Bradley University in making vision screening a part of their educational program is a definite asset to the project. This example can be followed by other institutions and with undeniable benefit to all concerned. However, it should not be assumed that the lack of a major university should preclude the operation of a vision program in another community.

We have uncovered several weaknesses in the program, chief of which is the need for a follow-up of unresponsive parents to urge them to obtain the visual care and to return the referral cards. Public health nurses have ably demonstrated their effectiveness in follow-up procedures. There is no doubt that this part of the vision screening program would be strengthened with public health nurses assigned to the responsibility of follow-up.

We believe vision screening is an important function and should be done once a year on each child. This is a basic need in the total field of preventive visual care.

CASE REPORTS



Organic Mercurial Poisoning Treated With Bal In Oil

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Bloomington

Organic mercurial poisoning through the use of mercurial diuretics has been recognized for some time. The characteristics have been stated to be similar to that of poisoning with an inorganic mercury compound[1]. So far as we know, however, there has been no report of the use of "BAL in Oil" in the treatment of such poisoning. We wish to report such a case.

A fifty year old white female with hypertensive cardiovascular renal disease was admitted to the hospital February 7, 1948 due to severe dyspnea and extreme dependent edema with a large quantity of ascites. Her symptoms had first begun ten years previously and gradually increased in intensity.

The patient was digitalized and given a mercurial diuretic (Salyrgan-Theophylline) intravenously in a quantity of 2cc. every fourth day for a total of 10cc. Ammonium chloride was given orally in addition. She was released from the hospital on March 1, 1948 having lost forty eight pounds in weight and with only a minimal amount of residual edema remaining. During her hospitalization the laboratory work was essentially normal as far as the blood chemistry and the blood count were concerned, although a mild hypochromic anemia was found. A urinalysis on admission was abnormal showing a specific gravity of 1.016 with four plus albumen being present. Granular casts were also observed. At the time of discharge, however, the urine showed only a trace of albumen but still had a specific gravity of 1.016.

On May 27, 1948 the patient was readmitted with the same symptoms as on her original admission, having regained the weight lost while hospitalized. The blood pressure was found to be 190 systolic and 110 diastolic. A blood count at this time showed 3,420,000 red cells with 7.8 grams of hemoglobin. The white count was 5,000 white cells with a differential of 84 neutrophiles, 2 eosinophiles, 12 lymphocytes and 2

monocytes. The urinalysis showed four plus albumen with both hyaline and granular casts being present. The speeifie gravity was 1.016. Blood chemistry studies showed a non-protein nitrogen of 112 mgms. per 100 ce., a urea nitrogen of 21 mgms., a creatinine of 3.1 mgms., and a total protein of 6 grams.

To combat the anemia a transfusion of 500 cc. of eitrated whole blood was administered immediately. A mereurial diuretie was given intravenously on admission to the amount of 2 ee. It was repeated on the next day and then was given every other day for three doses and then every third day for seven doses for a total of 24 cc. in a twenty four day period. At the eonclusion of this interval she had lost thirty eight pounds in weight. She had during this time also been given an additional 500 cc. of whole blood.

On the 25th day the patient began to eomplain of a sore mouth. Examination disclosed blackened and bleeding gums with some erusting of the tongue. Faeial edema was seen. On the next day a generalized erythematous maculopapular eruption was observed over the entire body. In addition, the patient complained that her mouth was so sore that she could not eat and that when she attempted to swallow she became severely nauseated and vomited. She was somewhat stuporous and obviously in extreme distress.

Consultation was obtained with one of us (A. E. L.) at which time it was suggested that the acute symptoms could be caused by mercurial poisoning due to aecummulation of this element through administration of the mereurial diuretie. Laboratory examination of a urine speeimen showed large amounts of mercury (approximately .075 mgms. per 100 cc.) and of a blood specimen, a small trace of mereury[2]. Repeated blood ehemistry studies at this time diselosed a rise in the creatinine value to 8.2 mgms. per 100 cc., the urea to 25 mgms. and the non protein nitrogen to 117 mgms. It was advised that the patient be treated with "BAL in Oil" (2,3 — dithiopropanol). This was instituted at once, the patient receiving 21 cc. in a forty eight hour period and then 3.50 cc. daily for three days, of the ten percent solution. In addition, during this time the patient was given supportive parenteral therapy. Improvement began slowly on about the last day of BAL therapy although the eruption began to fade on the second day. About ten days after the onset of this aeute condition the patient stated that she felt much better. The day after "BAL in Oil" was discontinued examination of the urine disclosed no evidenee of mereury.

Further treatment in the hospital was directed towards control of the eontinued decompensated state as evidenced by edema and aseites, with the use of a low sodium intake in addition to an abdominal paracentesis. She responded well on this management and on August 18, 1948 was again released from the hospital with only minimal edema. Her blood ehemistry at this time showed a non-protein nitrogen of 75 mgms, urea 15 mgms and a creatinine of 6.4 mgms. The blood count was normal. Her urine eontinued to show a four plus albumen during her hospital stay but the last specimen eontained no casts. The specific gravity remained at 1.016 during her stay.

DISCUSSION

The occurrence of the mercury poisoning can very probably be attributed to poor renal funetion. The patient was in a ehronic state of cardiae deeompensation and had been noted on previous admission to have a fixed speeific gravity. Evidently therefore although she did obtain a definite diuretie response from the use of the organic mercurial she was not clearing all of the diuretie substance given. She thereby accumulated sufficient mercury to produce the symptoms as noted. The prompt response to "BAL in Oil" was gratifying. The improvement could not be attributed to any other method of treatment which was instituted at that time. The patient suffered no ill effeets from the therapy as used and at the time of discharge was in better condition than she had been at the time of her first discharge from the hospital.

SUMMARY

A case of organic mereurial poisoning resulting from the use of a mereurial diuretie is reported. To our knowledge this is the first time that "BAL in Oil" has been employed in this particular type of mereurial poisoning.

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Disseminated Coccidioidomycosis With Severe Cutaneous Manifestations

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San Bernardino, County Hospital
San Bernardino, California

Coccidioidomycosis caused by the fungus *Coccidioides immitis* has been known for many years to occur endemically in the San Joaquin Valley of California, particularly Kern County. Many cases have been reported from other parts of California, New Mexico, Arizona, Western Texas, Southern Nevada, and Southwest Utah, while sporadic cases have been reported from other parts of the United States. During the World War II thousands of troops were stationed in California and over 800 soldiers contracted coccidioidomycosis. Although the morbidity has been high the mortality has remained low. Since many of these soldiers are now living in all parts of the United States, it behooves the physician to be on the lookout for this disease caused by *C. immitis.*

In the clinics of Kern General Hospital patients with coccidioidomycosis are very common, particularly the cutaneous manifestations, i.e., erythema nodosum or erythema multiforme. The former is more common and is usually seen on the anterior surfaces of the legs, or the neck region, often described by the patient as "bumps". Most of these cases occur in women following a primary pulmonary infection. The skin manifestations have been considered as an allergic reaction of the disease and it has been noted that these patients are less likely to develop the fatal disseminated form. Another type of skin involvement, which is not too often seen, but which occurs in the fatal disseminated form of coccidioidomycosis is the pyogenic type in the form of pustules. In this variety the skin lesions may be single or multiple, and diffuse. The isolated lesion when present often occurs on the face, while the diffuse type usually affects the face, neck, and the extremities.

Our case illustrates the diffuse pyogenic type. These lesions first appear as papules and then become pustular. They may break down, coalesce and discharge a purulent exudate. The examination of the pus, by making smears and staining with hematoxylin and eosin, usually reveal the spherules of *C. immitis.* The spherules are easily identified by their double contoured refractile capsule and the endospores. Culture of the material upon Sabourard's media usually yields a positive growth within three to seven days. We have recently observed that by using blood agar plates the fungus grows much more rapidly, and an earlier growth is seen than in Sabourard's in which the organisms grow more slowly.

The following report illustrates a fatal case of disseminated coccidioidomycosis with severe cutaneous manifestations.

This 31 year old colored male was admitted to the Kern General Hospital January 1, 1948: stating that for the past three weeks he had noticed fever, night sweats, an unproductive cough, and a mild sore throat. Five days before admission the patient noticed many tender "bumps" in the skin over the arms and legs. Ten days before admission there developed a generalized subcutaneous rash. In 1941 he had had a herniorrhaphy and had had the usual childhood diseases. There was no history of tuberculosis, carcinoma, diabetes, or heart disease in the family. Patient had been a resident in Kern County for two and one half years.

Physical Examination: The temperature was 39, the pulse rate 88, respirations were 24 and the blood pressure 130/94. There was no tenderness or rigidity of the neck. Chest: clear to percussion and auscultation. The heart did not appear enlarged, no murmurs were heard. Liver, spleen and kidneys were not palpable and there was no tenderness in the abdomen. Extremities were negative except for the skin changes. The skin presented a generalized diffuse nodular eruption which appeared to be subcutaneous. Some



Figure 1. Note the diffuse mottling in both lung fields and the heavy infiltrative density behind the second right rib.



Figure 2. Photograph of face shows the pustular type of lesions. The facies illustrate the toxic state of the patient.

had a crusted appearance, were not tender and there was no associated itching. A diagnosis of erythema nodosum and San Joaquin Valley fever was made.

An x-ray examination of the chest (see Figure 1) showed a diffuse mottling throughout both lung fields with a heavy infiltrative density behind the second right rib which had a central radiolucent area suggestive of cavitation. The densities were not considered specific. The following conditions were considered: pneumoconiosis, tuberculosis, coccidioidomycosis and sarcoidosis. However, the most likely diagnosis was coccidioidomycosis. (Dr. David Miller, Roentgenologist.)

Laboratory: The Wassermann test was negative and Kahn test was positive. On January 3, one week later, both the Kahn and Wassermann tests were positive. A blood count revealed 32000 white blood cells, hemoglobin 84% (13.1 grams) and the differential count disclosed 56% neutrophils, 34% eosinophils and 10% lymphocytes. Urinalysis: specific gravity was 1.025; there was a trace of albumin, sugar was negative, and the microscopic was clear. Repeated blood cultures were negative. Skin tests for C. immitis on January 5, using a dilution of 1:100 was negative. Smears taken from one of the pustules on the face revealed staph albus. Cultures from the pustule after a week's growth was positive for *C. immitis*.

Course: While in the ward the patient ran a fever up to 102 degrees. The pulse became rapid, around 140, and the respirations increased from 28 to 36. He was given large doses of penicillin without any improvement. The amount of sputum raised was somewhat reduced in amount and was streaked with blood. On January 6, large nodules appeared over the scalp and about the face. The skin lesions became larger, especially on the face (see Figure 2); some became ulcerated, pustular and fluctuating. A purulent discharge escaped from some of the larger lesions on the face. Because of the severe pain in the skin, the patient was given morphine. On the 10th of January patient was seen by the dermatologist (Dr. K. Eskelson), who noted that the skin presented disseminative subcutaneous and fluctuating nontender abscesses not acutely inflamed. Some of the lesions were ulcerated and others were covered by crusts. The impression was a disseminated deep mycosis, most likely coccidioidomycosis. The application



Figure 3. Note the distribution of the skin lesions over the anterior surface of the legs. Bandage over site C. *immitis* with endospores.

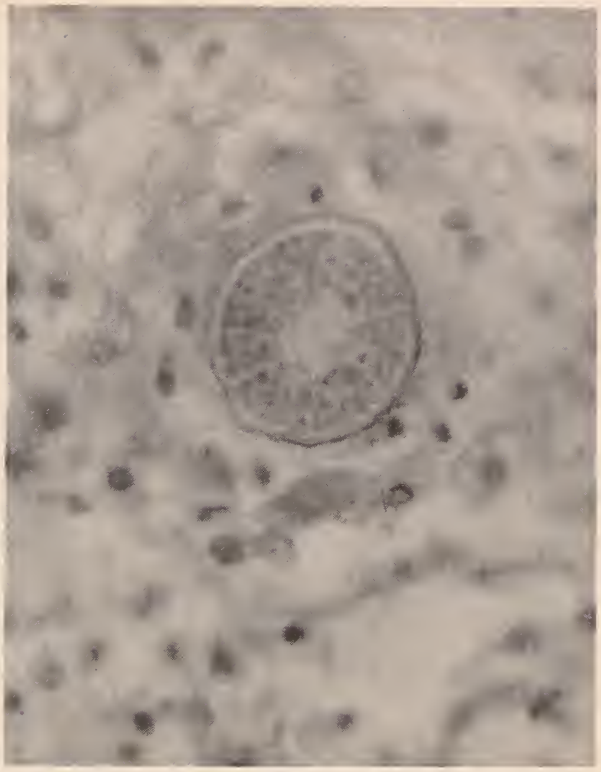


Figure 4. Photomicrograph shows a spherule typical of C. *immitis* with endospores.

of wet dressings of ammonia mercury unguentin to control the secondary infection was recommended.

On January 10 a biopsy of one of the subcutaneous nodules on the leg was taken (see Figure 3). On the following day the patient's condition appeared critical and upon his request was transferred to the Queen of Angeles Hospital in Los Angeles where he died shortly.

Pathological Examination: Tissue submitted was an elliptical piece of dark skin measuring 20 x 7 mm. and 6 mm. thick. On sectioning, the subcutaneous tissue presented a brown nodule 5 mm. in diameter. Microscopic examination revealed the epidermis to be intact and a slight hyperkeratosis. The rete pegs were broadened. In the subcutaneous layer there was a large area of hemorrhage and heavy infiltration of polymorphonuclear leukocytes. Scattered about were spherules resembling *Coccidioides immities*. Many of the spherules showed active endospores, (see Figure 4), while others showed various stages of degeneration. Occasionally the capsule was ruptured and the endospores were seen escaping into the surrounding tissue. In the periphery of the nodule there were numerous epithelioid cells, plasma cells, round cells, and an occasional spherule. The arterioles were slightly thickened and the endothelial cells were swollen. The nodule in the subcutaneous tissue was surrounded by much collagen. In the cutis there were focal areas of epithelioid cells, round cells, plasma cells, and polymorphs often surrounding capillaries. These areas showed no spherules.

Pathological Diagnosis: Cutaneous coccidioidomycosis of the disseminated type.

COMMENTS

In a review of fifty fatal cases,[1] taken from the autopsy files of Kern General Hospital since 1933, eleven cases were found in which skin manifestations were present or an incidence of 22%. These lesions often were single and appeared crusted. A purulent exudate could be expressed after removing the dried crusts. In several cases the patient had noticed a pustular lesion preceding the clinical symptoms of dissemination. In our case, the smears and biopsy established the correct diagnosis. The x-ray studies of the chest were not diagnostic of coccidioidomycosis. As is usually the case, the diagnosis often considered by the radiologist is that the changes are compatible with either

coccidioidomycosis, pneumonia, tuberculosis with or without cavitation, or congenital cysts.

Skin tests with coccidioidin, using the dilutions of 1:100 are helpful in establishing a diagnosis. In a suspected case in which the skin test is negative in the dilution of 1:100, one may try 1:10. In our experience we have seen positive skin tests with higher dilutions, which previously had been negative. A positive skin test is helpful in establishing the diagnosis. Another laboratory procedure which is of much help is the sedimentation rate which is often elevated in coccidioides, and this usually indicates activity of the lesion. Eosinophilia may be present, as in our case. In our series of fatal cases there was an eosinophilia present in 22.2% of the cases.

SUMMARY

A case of disseminated coccidioidomycosis with unusually severe skin manifestations is presented. The lesions were particularly abundant on the face and the anterior surfaces of both legs and were of a macular-pustular type.

Smears and biopsies revealed the spherules characteristic of *C. immitis*. The dark skinned people are more susceptible to the fatal form of the disease than are fair skinned people, (approximately 76%[2]).

Skin tests using coccidioidin and serological examinations for complement and precipitins are of diagnostic and prognostic aid.

A history of a patient having lived in an endemic area where coccidioidomycosis is prevalant must be kept in mind and is of great help in the differential diagnosis of establishing a correct diagnosis.

REFERENCES

1. Kirshbaum, J. D., and Fraide, R.; Review of fifty fatal cases of Coccidioidomycosis; (In print).
2. Kirshbaum, J. D.; Coccidioidomycosis; The Quarterly; Chicago Medical School, January 1949.

LIVES LOST IN CATASTROPHES

New York, N. Y. — More than 1,200 lives were lost in catastrophes — accidents in which five or more are killed — during 1949 in the United States, according to the statisticians of the Metropolitan Life Insurance Company. The death toll was higher by about 150 than in 1948.

Although the Washington, D. C. plane collision in November resulted in the heaviest loss of life in a single crash in United States civilian aviation history — 55 deaths — civilian air transportation recorded only a slightly higher number of deaths than in 1948.

Increases were shown in 1949 over 1948 in the number of catastrophe deaths from motor vehicle accidents, fires and explosions, and from such natural disasters as tornadoes, floods, and blizzards. There were fewer deaths in major water transportation accidents, and no catastrophic accidents in mines.

Accidents taking 25 or more lives in the United States last year, ranked according to loss of life, were:

	Number of Lives Lost
Effingham, Ill., hospital fire, April 4	75
Chain-like tornadoes in Arkansas and Louisiana, January 3 (54 deaths in Warren, Ark.)	59
Washington, D. C., scheduled air transport plane collision with fighter plane, November 1	55
California nonscheduled transport plane crash, November 29	28
Blizzard, mountain states, January 2-4	25

NEWS OF THE STATE



BUREAU

Personal.—Dr. J. T. Wyatt, Roanoke, retired recently from the active practice of medicine. Dr. R. J. Davies has taken over his practice.

CHAMPAIGN

New County Bulletin.—The Bulletin of the Champaign County Medical Society, Volume I, Bulletin I, made its appearance in January. It is a small and well organized bulletin, carrying an editorial, notice of meetings and local activities. The printed sixteen-page bulletin supplants the "Sawdust Reporter" formerly issued by the society.

COLES

Personal.—Dr. John Alexander was named health officer of Charleston, January 9, succeeding the late Dr. William J. Harend.

COOK

Woman Physician Honored.—Dr. Vera Morkovin, Maywood, is believed to be the first Illinois woman physician certified by the American Board of Surgery, newspapers reported recently.

Appointments at Northwestern.—Dr. John A. Bigler, medical director of Children's Memorial Hospital, has been appointed professor and chairman of the department of pediatrics, Northwestern University Medical School. He has been a member of the staff since 1930.—Dr. Theodore R. Van Dellen, assistant dean of the medical school and associate editor, Illinois Medical Journal, has been named associate professor of medicine.

Dr. Richmond Promoted.—Dr. Julius B. Richmond has been promoted to the rank of professor of pediatrics at the University of Illinois College of Medicine.

Dr. Richmond formerly held the rank of associate professor of pediatrics and lecturer in Social Welfare Administration. He retains the position of lecturer in Social Welfare Administration.

Dr. Richmond has served as a member of the faculty of the College of Medicine since 1946. He has contributed numerous articles to medical literature, and last year was named a scholar in medical science by the John and Mary R. Markle Foundation of New York City. He currently is a member of the committee on organization of the Governor's Committee for Illinois on the Mid-Century White House Conference.

He holds the B.S., M.D., and M.S., degrees from the University. He took his internship and residency training at Cook County Hospital, and during the war was assigned to the School of Aviation Medicine at Randolph Field, Tex.

Chinese Physiologist Visiting Professor at Illinois.—Dr. Robert K. S. Lim, prominent physiologist and former surgeon-general of the Chinese Nationalist Army, has been appointed visiting research professor at the University of Illinois College of Medicine. At the University, Dr. Lim will continue research work on the gastrointestinal hormone, "enterogastrone," a term coined by Dr. Lim. He also will conduct a seminar each week and will perform a limited amount of graduate instruction.

He will be associated with the department of clinical science, headed by Dr. A. C. Ivy.

Dr. Lim received his medical education at Edinburgh University. From 1919 to 1923, he served as a lecturer at Edinburgh and then returned to his native China. From 1924 to 1937, Dr. Lim was professor and head of the department of physiology

at Peiping Union Medical College and conducted research studies in the fields of physiology and experimental medicine.

Personal.—Dr. Irwin S. Nieman, professor of microbiology and public health, Chicago Medical School, has been elected a Fellow in the American Public Health Association.—Dr. Harry H. Stephens has been named a member of the Oak Park Board of Health, filling the vacancy created by the resignation of Dr. E. M. Egan, recently.—Dr. Edward L. Compere has been named a member of the Illinois Commission for Handicapped Children.

Society News.—The Chicago Rheumatism Society was addressed by Dr. Edward F. Rosenberg recently on "Rheumatoid Arthritis: Experience with ACTH, Cortisone and other Adrenal Cortical Steroids."—Dr. Ernest E. Irons, president of the American Medical Association, addressed the Chicago Council on Community Nursing recently on "Good Medical Care for Our Citizens."—Dr. Maurice H. Cottle, Chicago, addressed the Indianapolis Ophthalmological and Oto-Laryngological Society, February 9, on "Modified Septum Operations."—Dr. Carl C. Pfeiffer, professor and head of the department of pharmacology, University of Illinois College of Medicine, addressed the Society recently on "Possible Relation of Salicylate Therapy to the Adrenal Cortex."

New Fund for Research in Endocrinology.—The Ralph Arthur Raclin Memorial Fund for research in endocrinology and allied fields has been established at the University of Illinois College of Medicine.

A gift in the amount of $25,000 has been received from Mr. and Mrs. H. L. Raclin, Highland Park, for the establishment of the fund. The gift has been donated in memory of their son, Private First Class Ralph Arthur Raclin of the U. S. Army Medical Corps.

The fund will be used for research in endocrinology and allied fields under the direction of Dr. Willard O. Thompson, clinical professor of medicine.

Students Study on the Common Cold.—The Chicago Medical School, through its Student Health Service, is beginning an experimental project to study the effect of antihistiminic drugs on the common cold. All students are requested to report to the health service as soon as possible after the onset of cold symptoms, and are placed on antihistiminic treatment. No other form of medication is permitted. In the spring, the material assembled during the course of the experiment, it is hoped, will be of value in judging the efficacy of antihistiminic drugs in combating the common cold.

Appointments at Chicago Medical School.—According to Dr. John J. Sheinin, dean of the Chicago Medical School, the following appointments were recently made: Dr. Edward F. Rosenberg, assistant professor of medicine; Dr. Samuel I. Kaufman, assistant professor of ophthalmology; and Dr. Hymen J. Hirshfield, assistant in medicine. In addition, Dr. Frank C. Lawler has been appointed to the Board of Trustees of the school.

University News.—Dr. William C. Rose, professor of biochemistry, University of Illinois, Urbana, gave an assembly hour lecture, January 18, at the Chicago Campus on "The Role of Amino Acids in Nutrition." The lecture was given under the auspices of the Phi Lambda Kappa Fraternity.

Cuban Award Goes to Chicago Men.—The Orden de Carlos Manuel de Cespedes decoration, highest award of the Cuban government, was presented to Dr. Tom D. Spies, professor of nutrition and metabolism and chairman of the department at Northwestern University Medical School, and Dr. Robert R. Williams, M.S., Research Corporation, New York, famous chemist known for his work in isolating vitamin B_1. The Orden de Carlos Manuel de Cespedes decoration was created in 1926 in honor of Carlos Manuel de Cespedes, first president of Cuba. It is given to a Cuban or a foreigner who has done outstanding work of a humanitarian nature for the Cuban people.

Memorial Lectures.—Dr. John G. Kidd, professor of pathology, Cornell University Medical College and pathologist-in-chief, The New York Hospital, delivered the Fourteenth Christian Fenger Lecture at a joint meeting of the Institute of Medicine and the Chicago Pathological Society, January 27. The lecture was entitled "Experimental Necrobiosis—A Venture in Cellular Pathology."—The twenty-sixth Lewis Linn McArthur Lecture of the Frank Billings Foundation was delivered, February 24 by Dr. Charles C. Machlin, professor of histology, University of Western Ontario Faculty of Medicine.

Gift Honors Irving Cutter.—The Irving S. Cutter Memorial Professorship will be established at Northwestern University Medical School through an annonymous gift of $750,000, it was announced January 21. The gift will also provide for an assistant professorship of medicine. The anonymous donor is an alumnus of Northwestern who admired the late Dr. Cutter, dean of the medical school from 1925-1941, and head of Passavant Memorial Hospital from 1928 until his death in 1945.

Branch Meeting.—At a meeting of the North Shore Branch of the Chicago Medical Society, the speakers were Dr. Howard L. Alt, Chicago, on "Newer Methods in the Management of Leukemia and Allied Diseases" and Dr. Wallace E. Herrell, Mayo Clinic, Rochester, Minn., on "Clinical Experience with the Newer Antibiotics."

DE WITT

Community Honors Physician.—Dr. Fred M. Blome, Kenney, was honored January 2 when the local community made a public celebration of his seventieth birthday. Dr. Blome has been practicing in Kenney for thirty-two years, having previously practiced in Clinton, Chicago and Roberts. He has served on the Kenney village board and the board of

education and has been twice president of the De Witt County Medical Society.

IROQUOIS

Special Society Election.—At a recent meeting of the Iroquois County Medical Society, the following new officers were named: Dr. Ryland Buckner, Gilman, president; Dr. N. O. Hungness, Sheldon, vice president and Dr. S. G. Cilella, Milford, secretary-treasurer. At the same meeting, Dr. Myrtle Sweimler, Watseka, was elected president of the Iroquois Hospital medical staff, Dr. Ryland Buckner, vice president and Dr. R. F. Donovan, Watseka, secretary-treasurer.

JEFFERSON-HAMILTON

Personal.—Dr. Emmerson Ward has resigned his practice in Mount Vernon to accept a staff position at the Mayo Clinic, Rochester, Minn.

KANKAKEE

New Hospital Heads.—Dr. Ernest S. Klein, assistant superintendent at Kankakee State Hospital, has become acting superintendent, pending permanent appointment to succeed Dr. George W. Morrow who retired.—Dr. George M. Cowan has been appointed clinical director of the Kankakee State Hospital.

KNOX

Special Society Election.—The following officers of the Knox County Medical Society were reelected at a business meeting recently: Dr. John L. Bohan, president; Dr. M. C. Beecher, vice president; Dr. Alexander M. Duff Jr., secretary-treasurer and Dr. J. C. Redington, delegate to the Illinois State Medical. Dr. Philip Thorek, Chicago, addressed the society on "Intestinal Obstruction."—Dr. Glen Clarke addressed the society in Galesburg, December 15, on the Blue Shield Plan and showed a motion picture stressing the early diagnosis of cancer.

LEE

Society Election.—Dr. J. L. Palumbo, Ashton, was named president at the recent meeting of the Lee County Medical Society. Dr. H. F. McCall, Dixon, was elected vice president and Dr. T. J. Caldarola, Franklin Grove, secretary.

LA SALLE

Staff Election.—Dr. Jerry De Vries, Ottawa, was chosen president of the medical staff of Ryburn-King Hospital, to succeed Dr. Paul Clark, Marseilles. Dr. Elmer Maierhofer, Ottawa, was chosen vice president and Dr. G. Alan Neufeld, secretary.

MACON

Physician Chosen "Man of the Year".—Dr. Herbert J. Bavor, thirty-four year old surgeon of Decatur, was named "Young Man of the Year" for his organization and technical supervision of the Macon County blood bank. The selection was made by the Junior Chamber of Commerce which awarded Dr. Bavor its distinguished service award.

MERCER

Fiftieth Golden Wedding Anniversary.—Dr. and Mrs. V. A. McClanahan, Aledo, recently marked their golden wedding anniversary at a reception in their home. Dr. McClanahan has been practicing in Mercer County for fifty-five years, served as secretary of the Mercer County Medical Society for twenty-five years, coroner of the county for sixteen years and was the first president of the Mercer County Red Cross chapter.

MORGAN

New Officers.—Dr. Robert Hartman is the new president of the Morgan County Medical Society and Dr. Paul Hartley, vice president. Dr. Mary Louise Newman was reelected secretary-treasurer.

Society News.—At the January 12 meeting of the Morgan County Medical Society in Jacksonville, Dr. James P. Simonds, emeritus professor of pathology at Northwestern University Medical School, Chicago, gave brief discussions on the following: "Toxic and Infectious Hepatitis", "Glomerulonephritis", "Virus 'Atypical Pneumonia'", "Malignant Tumors of Testes", "Myocardial Infarction", and "Regional Ileitis."

PEORIA

Esther Stone Retires.—Dr. Esther H. Stone, Peoria, completed forty-two years of executive service with the Illinois Department of Public Welfare in November. She was given several gifts at a surprise party marking her retirement.

Staff Election.—Dr. Walter W. King was elected president of the active medical staff of Methodist Hospital at a recent meeting. Other officers include Dr. William Cooley, Jr., vice president; and Dr. Carleton R. Smith, reelected secretary-treasurer.

Society News.—Dr. Harold A. Sofield, Oak Park, addressed the Peoria Medical Society, January 17 in Peoria on "Intra Medullary Fixation."—Members of the staff of Peoria State Hospital and the Peoria Medical Society met in joint session February 16 with Dr. David Slight, Chicago, discussing "Nature and Scope of Psycho-somatic Medicine."

Society Election.—Dr. C. P. Strause was named president-elect of the Peoria Medical Society at a meeting, December 16 and Dr. Charles Sneller was installed into the presidency, succeeding Dr. James Sours. Dr. C. F. Neuhoff was reelected secretary-treasurer. Also at the meeting, Life Emeritus memberships, signifying thirty-five years of work with the Peoria Medical Society, were awarded to Dr. L. A. Burhans, Dr. William Cooley, Sr., Dr. Charles Farnum, Dr. F. F. Jones, Dr. A. A. Knapp, Dr. George Parker and Dr. H. M. Sedgwick.

ROCK ISLAND

New Superintendent of State Hospital.—Dr. A. H. Wolff, who has been acting superintendent of the East Moline State Hospital, has been officially appointed to the superintendency, effective January 1.

Society News.—Dr. Edwin F. Hirsch, Chicago, pathologist at St. Luke's Hospital, addressed the Rock Island County Medical Society, February 14, on "Bronchogenic Carcinoma."

SALINE

Society Election.—Dr. R. V. Ferrell, Eldorado, was elected president of the Saline County Medical Society at its regular meeting in Harrisburg recently; Dr. W. D. Tuttle, Harrisburg was chosen vice president and Dr. G. E. Kachele, Carrier Mills, secretary-treasurer.

SANGAMON

Physicians Assigned Numbers for Meetings.—The Sangamon County Medical Society has inaugurated a system whereby physicians who are in attendance at meetings may be paged by a call number. The system is very advantageous at public gatherings where very often it is necessary to be paged by name.

Society News.—Dr. Lindon Seed, associate professor of surgery, University of Illinois College of Medicine, Chicago, addressed the Sangamon County Medical Society, December 11, on "Diseases of the Thyroid."

VERMILION

Woman Heads Hospital Staff.—Dr. Martha A. Parker, a pediatrician and wife of a physician, Dr. Forrest Parker, was elected the head of the medical staff of St. Elizabeth's Hospital, the first time in the fifty-year history of the hospital that a woman has been named to the position.

WINNEBAGO

Society News.—Dr. Herbert Rattner, associate professor of dermatology, Northwestern University Medical Society, Chicago, addressed the Winnebago County Medical Society recently on "Recent Advances in Dermatology." The Society was addressed February 14 by Dr. Howard G. Hollway, Chicago, on "Manual Rotation in Persistent Occiput Posterior Positions," illustrated.

GENERAL

New Officers.—At the recent meeting of the National Society for Crippled Children and Adults, Gerard M. Ungaro, Winnetka, treasurer, was named president-elect, and William H. Jaenicke, San Francisco, was installed as president. Other officers elected were Louise Baker, Yellow Springs, vice president; Wesley Gilman, advertising executive, Philadelphia, vice president; George A. Selke, Ph. D., chancellor, University of Montana, Helena, vice president; Davis E. Geiger, business executive, Ashland, Ky., treasurer; and Lawrence J. Linck, executive director of the National Society, Chicago, secretary.

Clinical Meeting on the Heart.—The clinical section of the Chicago Heart Association met February 14 at the Museum of Science and Industry with Dr. Fork K. Hick, chairman, clinical section committee, and Dr. Hugh McCulloch, chief of staff, La Rabida Sanitarium, presiding. The following program was presented: Drs. Eleanor M. Humphrey and Earl P. Benditt, both of Chicago, on "Presentation of 1949 Cases With Postmortem Examinations" and Dr. Albert Dorfman, Chicago, on "Effect of Steroid Compounds (ACTH) on Rheumatic Fever. Three papers were presented by title only.

Society for Experimental Biology and Medicine Illinois Section.—The third meeting of the Society for Experimental Biology and Medicine, Illinois Section, for the year 1949-1950, at the University of Illinois College of Medicine, was devoted to a symposium on the adrenal cortex:

Guest Speaker, Ruchmael Levine, Michael Reese Hospital, Subject: Summary of the Physiological Action and Clinical Application of the Steroids. The Effect of Cortisone and of Adrenal Cortical Insufficiency Upon the Growth of the Walker Carcinoma in Force-Fed Rats. Dwight J. Ingle, Research Laboratories, The Upjohn Company, Kalmazoo, Michigan.

Growth and the Adrenal Cortex. Burton L. Baker, Department of Anatomy, University of Michigan, Ann Arbor, Michigan.

Effects of Hormones of the Adrenal Cortex Upon Granulation Tissue. M. Taubenhaus and G. D. Amromin, Department of Metabolic and Endocrine Research and the Department of Pathology, Michael Reese Hospital, Chicago.

Pituitary, Adreno-Cortical and Splenic Control of Fibrinolysis and Histamine Release; Importance of the Availability of Ascorbic Acid, Georges Ungar, Clarence G. Van Arman and Evelyn D. Damgaard.

The Use of the Adrenalectomized Mouse in the Assay of Antihistamine Compounds. Francis J. Saunders, Research Laboratories of G. D. Searle and Company, Chicago, Illinois.

Effect of Antipyretic Analgesics on Circulating Eosinophils and 11-Oxysteroid Levels in Blood and Urine. C. C. Pfeiffer, E. S. Hemmens, R. E. Lee, and Andrew Hasegawa, University of Illinois College of Medicine.

Adactar: An Adrenocorticotropin Preparation with Prolonged Activity. W. Q. Wolfson, C. Cohn, B. Katz (by invitation) and M. Katz (by invitation), Deparment of Biochemistry, Research Institute, Michael Reese Hospital, Chicago, Illinois.

The Experimental Chemotherapy of Poliomyelitis in Mice with Phenosulfadiazine. Charles D. Proctor and Chester L. Byrd, Jr. Department of Pharmacology, Stritch School of Medicine, Loyola University, and the Virus Laboratory of the Hektoen Institute for Medical Research, Chicago, Illinois. (read by little only)

Report on Hospital Construction.—"An additional 1350 hospital beds will be available in Illinois when the 19 hospitals, which have been approved

for state and federal grants-in-aid since the fall of 1947, have been completed, "George K. Hendrix, chief of the state division of hospital construction and services, reported recently in an address before the Illinois Hospital Association.

"These approvals represent a total expenditure of almost $25,000,000 with approximately $6,000,000 coming from state funds, almost $8,000,000 from federal funds and the balance of a little over $10,000,000 being provided by local sponsors," he said.

All of the projects approved under this program to date are general hospitals with the exception of the state tuberculosis hospital at Mt. Vernon, he said. A review of the over-all program shows that one hospital, St. Clement's at Red Bud, is completed, with the others from 15 per cent to 98 per cent finished.

Hospitals at Aledo and Flora, now being built under this program, are scheduled to receive patients by the first of the coming year, Hendrix stated. By mid-summer of 1950 at least three of four more of these hospitals should be in operation.

Hendrix explained that the amendment to the federal hospital survey and construction act which was passed by the 81st Congress has extended this program four years beyond the original June 30, 1951 expiration date. The amendment also authorized a 100 per cent increase in the annual appropriation for assistance to local hospital construction, the sum being increased from $75,000,000 per year to $150,000,000 per year.

The amount of federal funds which is to be allowed for each local hospital in Illinois was also revised upward in this amendment, he explained. Previously, this amount was fixed at 33 ⅓ per cent, but is now 38.8 per cent for each project.

The construction of the state and federal grant-in-aid hospitals is being approved on a priority basis, with those areas where the poorest hospital facilities now exist receiving top priority.

"For the first time in history, hospitals are being strategically located in such manner that the time is rapidly approaching when adequate hospital facilities will be available to the people of Illinois," Hendrix said.

Illinois Physicians Out of the State.—At the annual meeting of the American College of Allergists in St. Louis, January 16, the following Chicago physicians participated: Theron G. Randolph, John P. Rollins and Michael Zeller, on "ACTH: Its Effect in Bronchial Asthma and Other Allergic Conditions", "ACTH: Gross and Histologic Effects on Skin Tests and Passive Transfer" and "Concentrated Adrenal Extract: Its Effect in Bronchial Asthma," Respectively; Dr. Leon Unger, "Allergy and Allergy Symptoms" and Gerald M. Cline and Eugene E. Taylor, both of Bloomington, on "An Approach to Allergic Problems in Children." Dr. Unger opened a discussion on a paper by Drs. Maxwell L. Gelfand and A. Robert Widlitz, New York City, and also opened a discussion read by Dr. Clarence Bernstein, Orlando, Fla., formerly of Chicago, on "The Use of Histamine in Foreign Protein Type Reactions".—Dr. Edwin R. Levine, Chicago, addressed the Central Ohio Society of Chest Physicians recently on "The Cause and Prevention of Pulmonary Emphysema".—Dr. Eugene F. Lutterbeck, Chicago, discussed "The Present Status of Contact Roentgen Radiation" before the staff of the United States Marine Hospital (National Leprosarium) in Carville, Louisiana, January 4.—Dr. Philip Thorek, Chicago, was guest speaker before the American Academy of General Practice of Greater St. Louis, January 24, in St. Louis, and discussed "Gastric Surgery".—Dr. Edmund Jacobson, Chicago, discussed "Relaxation and the New Education" before the University of Minnesota (Relaxation Institute), February 17 and "Neuromuscular Relaxation in the Treatment of Hypertension" before the Minnesota Chapter of the American Academy of General Practice, February 18.

MARRIAGES

Robert E. Votteler, Peoria, to Miss Helen Jean Cheney of Evanston, October 30.

DEATHS

William Felice Borelli, Chicago, who graduated at Bennett Medical College, Chicago, 1905, died December 9, 1949, aged 69, of coronary occlusion. He served on the staff of the Veterans Administration Hospital at Hines, Ill.

Edward Lyman Cornell, Chicago, who graduated at Rush Medical College in 1910, died January 31, aged 66, of coronary thrombosis. He was assistant professor of obstetrics at Northwestern University Medical School, and past president of the Chicago Gynecological Society.

George Leslie Dailey, Chicago, who graduated at the University of Illinois College of Medicine in 1915, died January 17, aged 61. He had practiced medicine in Chicago for 30 years.

Samuel O. Eads, retired, Decatur, who graduated at Hospital College of Medicine, Louisville, Ky., died January 3, aged 80.

Frederick F. Ehlers, Oak Park, retired, who graduated at Northwestern University Medical School in 1905, died February 6, aged 79.

Lee Conell Gatewood, Chicago, who graduated at Rush Medical College in 1911, died January 3, aged 60, of coronary thrombosis. He was clinical professor of medicine at the University of Illinois College of Medicine.

Frederick Benjamin Moore, Shabbona, who graduated at Keokuk Medical College of Physicians and Surgeons in 1902, died in his home, January 15, aged 75. He had practiced medicine in Shabbona forty years, and served as health officer for many years.

William Daniel Nappe, Chicago, who graduated at Chicago College of Medicine and Surgery in 1915, died in his home, January 13, aged 57. He had practiced medicine in Chicago for 33 years.

Franklin Patterson, retired, Lake Bluff, who graduated at Chicago Homeopathic Medical College in 1897, died in his home, December 21, 1949, aged 80.

Arthur Pearman, Rockford, who graduated at Rush Medical College in 1910, died January 10, aged 65.

Peter George Pitchios, Chicago, who graduated at Loyola University School of Medicine in 1929, died January 10, aged 50.

Curtis F. Powell, retired, Polo, formerly of Dixon, died January 8, aged 73. He was a member of the Staff of Dixon State Hospital for many years.

James S. Rankin, retired, DeKalb, who graduated at Northwestern University Medical School in 1895, died January 11, aged 79. He was head of the DeKalb County Tuberculosis Association for many years.

Carl G. Roberts, retired, Chicago, who graduated at Chicago College of Medicine and Surgery in 1911, died January 15, aged 63. He had practiced medicine in Chicago for 30 years before his retirement.

Vaughn Lee Sheets, retired, Chicago, who graduated at Chicago College of Medicine and Surgery in 1903, died in St. Francis Hospital, Evanston, February 2, aged 80.

Irving J. Straus, Chicago, who graduated at the University of Illinois College of Medicine, in 1896, died January 14, aged 81. He had practiced medicine in Chicago for fifty years and was a member of the "Fifty Year Club" of the Illinois State Medical Society.

Vincent Michael Timm, Metropolis, who graduated at Chicago College of Medicine in 1935, died December 26, 1949, aged 50. He had practiced medicine in Metropolis for ten years.

August William Werner, Quincy, who graduated at the Bennett Medical College, Chicago, in 1898, died December 24, 1949, aged 78, of acute miliary tuberculosis.

Thomas B. Williamson, Mount Vernon, who graduated at the National University of Arts and Sciences Medical Department, St. Louis, Mo., in 1906, died January 10, aged 65. He was past president of the Southern Illinois Medical Association, and he served for some time as chairman of the Maternal Welfare Committee of the Illinois State Medical Society.

"FOR THE COMMON GOOD"

Health Talk on TV listed Among Best.—Televiewers and subscribers to Television Forecast recently chose Health Talk on TV among the first five best educational programs on television. The Educational Committee considered this an honor, since no attempt is made to publicize the telecasts, which are weekly over WGN-TV, Channel 9, except in the formal channels of program listing. Health Talk on TV is concluding its thirteenth month of regular program fare; each week individual physicians and laymen concerned with health give their time in cooperating in a sincere public service. Indeed, real patients give also of their time to tell a true story.

In addition to the many requests concerning Health Talk on TV, mention must be made of the New York Tuberculosis Association, the New York Heart Association, and the General Electric Company who specifically cited interest in the first fluoroscopic demonstration of its kind in the telecast "So You've Had a Heart Attack."

Since the Illinois State Medical Society and WGN-TV jointly launched the series, two dental programs have been given. The second, February 8, was timed for the annual meeting of the Chicago Dental Society at the Stevens Hotel. So pleased was the Dental Society with the scheduling of the program, "Your Child Goes to the Dentist," that they assumed expense for not only transportation of equipment into the studios of WGN-TV, but for the installation of television sets throughout the Stevens Hotel. Maury Massler, D.D.S., professor of pedontics, University of Illinois College of Dentistry, with four patients told the story, with Dr. Theodore R. Van Dellen acting as moderator, as he does in each weekly Health Talk.

"Application of a Cast" was the title of the telecast, January 18, with Dr. Claude Lambert and Pearl Wittmack, R. N., both of the staff of St. Luke's Hospital, telling the story. A cast for a Colles fracture was actually applied in the studio with every one in their plaster room gowns.

"Inside the Operating Room" titled the telecast, January 25. With emphasis on the need and care taken for asepsis, procedures were shown for scrubbing, steps taken for sterilization of operating room equipment, and finally the actual demonstration of preparing a patient for surgery. Participants were Dr. Percy E. Hopkins and Lita Abele, R. N., both of the staff of Evangelical Hospital.

"Plastic Surgery and Your Growing Child" was featured, February 1, with Dr. Wayne B. Slaughter as the authority. Small patients told their own story, with the exception of one seven weeks old baby, who smiled his enthusiasm.

Under the title, "The Second Child Arrives," Dr. Lawrence Breslow, Mrs. Richard Von Albrecht, Ricky, aged 5, and Bonnie Dhu, aged four months, talked about the emotional needs of the older child when a second arrived on the scene.

Cosmo Genovese, WGN-TV studio producer, who has been with the Health Talk series since its inception, has been assigned to other programs. Ernie Lukas has taken his place on the Health Talk series. Too much praise cannot be given to Mr. Genovese for his sincerity, his genuine interest, and his studious effort in producing Health Talk on TV. If Health Talk has done well, if it is well received, a large part of the credit goes to Cosmo Genovese.

Health Talk

Health Talk, the publication, continues its popularity, as daily requests are received for additions to the mailing list. Jane Stafford continues to feature it occasionally in her Scrippts-Howard column, and a new recognition was given when it highlighted three programs of Sylvia and Moulton Kelsey in their WGN radio series, "Coffee with the Kelseys," a day by day story of a couple expecting their first child. That an attempt is made to keep this popular and human interest radio series on an ethical and dignified plane is reflected in the way it channels its efforts through the Educational Committee.

Radio

A new educational series on health was launched over WFJL, FM Station, Chicago, in cooperation with the Educational Committee of the Illinois State Medical Society and presented by members of the Chicago Medical Society. Titled "Your Doctor Speaks," the series opened February 2, with Dr. Gilbert H. Marquardt discussing "Why Bother with Health." Other participants have been William J. Pickett, February 9, on "Major Trends in Surgery in the Last Generation"; Charles I. Fisher, February 16, "Is Your Blood Pressure Misbehaving"?; Kenneth Roper, February 23, "Eye Care in Adolescence"; Arnold Schimberg, March 2, "Colitis"; George M. Cummins, March 9, "Ulcers."

The scripts are prepared by individual members invited to participate and submitted to members of the Educational committee for suggestions and approval. Fifty-two weekly transcriptions are being planned.

A similar arrangement has been effected at the request of Dr. James P. Shortall for the Chicago Federation of Labor. This series is being prepared for WJJD, Chicago.

Lectures Arranged by the Educational Committee:

Edwin Hirsch, over WJJD in the Sun-Times Series "Let's Talk It Over", January 8, on Euthanasia, and over WGN-TV, January 13, on Euthanasia.

Edward J. Brophy, Mothers' Club of the Normal Park Presbyterian Church in Chicago, February 6, on Understanding Your Child.

Joseph T. O'Neill, Ottawa, Grand Ridge PTA in Grand Ridge, February 10, on Communicable Diseases.

Israel Davidsohn, Embalmers, Funeral Directors and Apprentices Union in Chicago, February 17, on "Autopsies," with discussion of new medications and their reactions in the embalming field.

Julius E. Ginsberg, Chicago, Lowell Girls' Club in Harvey, March 1, on Care of the Skin.

Morley McNeal, Highland Park, PTA Child Study Group in Arlington Heights, March 2, on Is the Tummy Ache a Fake.

Israel Sonenthal, South Bryn Mawr Wednesday Club, March 8, on Mental Health.

Robert Hagan, Chicago, Worth PTA in Worth, March 14, on Understanding the Adolescent.

Leo Kaplan, E. Burnham School of Beauty Culture, March 21, on Beauty and Emotions.

Groves B. Smith, Godfrey, High School, Salem Woman's Club and Lions Club, April 5, on Mental Hygiene Aspects of School, Mental Problems Within the Community, and Mental Hygiene in Relation to Community Planning.

Marc Hollender, Woman's Auxiliary, West Side Branch, Chicago Medical Society, February 17, on Your Emotions and You.

Arlington Ailes, La Salle, Marseilles Woman's Club, April 10, on Superstitions About Health.

Robert E. Cummings, Mothers' Club, Emerald Avenue Presbyterian Church in Chicago, April 4, on "Problems of Parenthood."

Donald A. Dukelow, American Medical Association, the McCormick School PTA, April 14, on Superstitions About Health.

Carl W. Christensen, Evanston, Waukegan City Club, April 25, in Waukegan on Juvenile Delinquency.

A. H. Wolff, East Moline, Oneida Junior Woman's Club in Oneida, April 26, on Your Mental Health.

Lectures Arranged Through the Scientific Service Committee:

Emery G. Grimm, McHenry County Medical Society in Crystal Lake, February 16, on Office Procedures in the Diagnosis and Treatment of Endocrinopathies, illustrated.

Willard O. Thompson, Chicago, Macon County Medical Society in Decatur, February 21, on Uses and Misuses of Sex Hormones.

Ralph E. Dolkart, Chicago, Kankakee County Medical Society in Kankakee, February 21, on Present Day Use of Antibiotic Therapy, illustrated.

Harry J. Dooley, Oak Park, Iroquois County Medical Society in Watseka, February 21, on Urinary Calculi, illustrated.

Charles N. Pease, Chicago, La Salle County Medical Society in La Salle, March 9, on Treatment of Fractures, illustrated.

Frederick Steigmann, Chicago, Kankakee County Medical Society, March 21, on Recognition and Management of the Different Types of Jaundice, illustrated.

Harry A. Warren, Peoria, Iroquois County Medical Society in Watseka, March 21, on Acute Rheumatic Fever, illustrated.

John B. O'Donoghue, Chicago, Iroquois County Medical Society, April 18, on Acute Conditions of the Abdomen, illustrated.

Thomas D. Masters, Springfield, Logan County Medical Society in Lincoln, April 20, on Metabolic Bone Diseases, illustrated.

Raymond W. McNealy, Chicago, Whiteside and Lee County Medical Societies, in Rock Falls, May 11, on Disease of the Thyroid and Its Management.

Conferences Arranged Through the Postgraduate Education Committee:

A Postgraduate Conference will be held at the Dunlap Hotel, Jacksonville, March 30, for the **Sixth Councilor District,** with Dr. R. R. Hartman, president of the Morgan County Medical Society, and Dr. F. Garm Norbury, Councilor of the District, presiding. Speakers on the program will be:

Herbert E. Schmitz, Chicago, Treatment of Gynecological Cancer, illustrated.

Everett P. Coleman, Canton, Trends in Medical Care.

James H. Hutton, Chicago, Obesity.

Warren H. Cole, Chicago, Pre and Postoperative Care.

In the evening, Dr. Walter Stevenson, Quincy, President of the Illinois State Medical Society, will discuss "Common Diseases of the Eye."

The Sixth Councilor District encompasses the counties Adams, Brown, Calhoun, Cass, Greene, Jersey, Macoupin, Madison, Morgan, Pike and Scott.

A Postgraduate Conference will be held at the St. Clair Country Club, April 6, for the **Tenth Councilor District**, with G. C. Otrich, Belleville, presiding as Councilor. Opening with a noon day luncheon, at which the St. Clair County Medical Society will be host, the following program will be presented:

Thomas H. Hunter, St. Louis, New Antibiotics.

Edmund A. Smolik, St. Louis, Management of Cerebral Accidents.

Walter J. Siebert, St. Louis, Papanicolaou Smears in the Early Diagnosis of Cancer, illustrated.

Sidney A. Portis, Chicago, Practical Approach to the Handling of Psychosomatic Problems in Patients.

Philip Thorek, Chicago, Acute Abdomen.

Norris J. Heckel, Chicago, Hematuria, illustrated.

Following the dinner in the evening, Dr. Walter Stevenson, Quincy, president of the Illinois State Medical Society, will speak on "Doctors and Their Political Obligations."

WARN AGAINST IMPROPER USE OF THYROID EXTRACT FOR REDUCING

Thyroid extract is a potent medicament which is dangerous if improperly used, warns an editorial in the Jan. 28 Journal of the American Medical Association.

Excessive doses of thyroid extract may cause nervousness, insomnia, loss of weight, heart disturbances, damage to the liver and even protruding eyeballs, the editorial points out.

"Unfortunately, some of the laity, particularly obese women, have learned that the drug can cause a reduction in weight," the editorial says. "Some of these women were treated originally with proper doses by physicians but have increased their daily intake without their physicians' knowledge and consent.

"Others have heard of the weight-reducing property of the medicine and have purchased it without a doctor's advice either as thyroid or concealed under some fancy name in patent medicine.

"None of the persons who resort to self medication realize that the reduction in weight is due to disturbances in metabolism and is not a directly selective action.

"There are several procedures that would aid in correcting the overuse of thyroid extract: Laws in all states prohibiting the sale of this medicament except on a physician's prescription; general recognition that thyroid treatment should be begun with minimal doses, as thyroid acts slowly and cumulatively, and education of the public against the dangers of this potent substance."

to correct those ill-defined secondary anemias which resist treatment with iron alone, write:

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Feosol Plus by no means replaces Feosol. Feosol is the standard therapy in simple iron-deficiency anemias.



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Economical: The dosage in these experiments was just one to three tablets daily.

White's **Sulfathiazole Gum** SAFE, TOPICAL CHEMOTHERAPY

*Neiman, I. S.: Prophylactic Value of Sulfathiazole, Archives of Otolaryn. 47:158-164 (Feb.) 1948.

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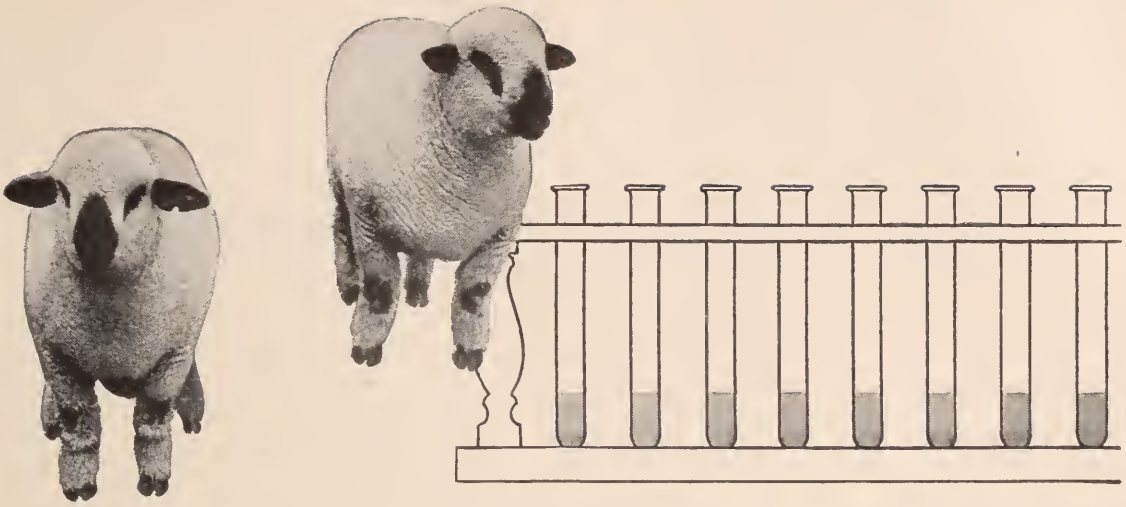
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The Seal of Acceptance denotes that the nutritional statements made in this advertisement are acceptable to the Council on Foods and Nutrition of the American Medical Association.

*McLester, J. S.: Protein Comes Into Its Own, J.A.M.A. *139*:897 (Apr. 2,) 1949

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PHYSICAL MEDICINE ABSTRACTS



THE DIAGNOSIS AND TREATMENT OF VASCULAR DISEASES

With special consideration of Clinical Plethysmography and the Surgical physiology of the Autonomic Nervous System. Professor R. H. Goetz. From the Department of Surgical Research, University of Cape Town, and the Department of Peripheral Vascular Diseases, Groote-Schuur Hospital, Cape Town. In THE BRITISH JOURNAL OF SURGERY XXXVII:7:24 July, 1949.

The results that are obtained with our portable digital plethysmograph are not only referable to the blood-flow through the skin but are also representative of the peripheral circulation in a strict sense.

The method registers the blood-flow accurately under most physiological conditions and furnishes a record which is standardized. The results, therefore, can be compared from patient to patient.

The method lends itself easily to routine clinical investigation, in the ward, the operating theatre, or at the patient's home.

The changes in pulse-volume not only serve as an important guide in distinguishing between a functional diminution in blood-flow (a high vasomotor tone) and an organic arterial disease, but permit the assessing of the part played by each in a mixed case.

In conjunction with the venous congestion test the method furnishes us with exact information of the arterial inflow and an accurate concept of the collateral circulation, thus providing us with a scientific approach to the diagnosis, treatment, and prognosis in diseases of the peripheral vascular system. The value of this information is illustrated in a number of cases.

It is in the early and doubtful case when plethysmography is most helpful in confirming or excluding the existence of an arterial lesion. At that stage skin temperature readings may still give normal values, with the result that many an early case is missed unless we resort to plethysmography.

Mention is made of the difficulties involved in translating skin temperatures into rate of peripheral blood-flow.

Successful treatment depends to a large degree upon the correct diagnosis in the incipient stages of the disease. Plethysmography therefore is not only an important adjunct in the investigation of peripheral vascular diseases, but also points the way to a more rational approach in their treatment.

The importance of measuring the peripheral (ultimate) blood-flow in contrast to the penultimate circulation has been stressed. It is pointed out that the danger to the patient's limb or life does not come from a deficiency of the blood-flow through the muscles, but from interference to

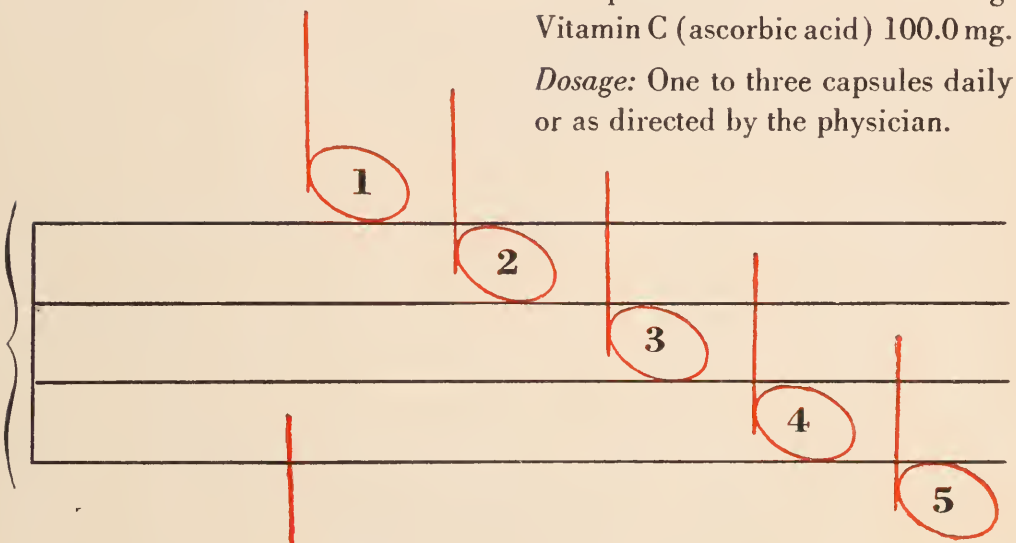
(*Continued on page* 48)

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Dosage: One to three capsules daily or as directed by the physician.

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the blood-flow through the skin, i.e., not from intermittent claudication but from threatening or developed gangrene. It is for these reasons that exact evaluation of the ultimate blood-flow in each case of arterial disease is of such importance, irrespective of the fact whether he does or does not present with signs and symptoms in reference to the blood-flow through the skin.

FIBROSITIS AND PSYCHOGENIC BACKACHE

K. K. Sherwood, M.D. and Bruce Zimmerman, M.D., Seattle, Wash. In NORTHWEST MEDICINE, 48:7:465. July, 1949.

Fibrositic and psychogenic backache, that is, backache not due to disease of the vertebrae, vertebral joints or vertebral cartilage, is the most common and the least understood form of backache.

Physiotherapy exists because of the amazing relief that it gives to primary and secondary fibrositis. Heat of a mild degree administered by any acceptable manner results in temporary disappearance of symptoms. When this heat is followed by massage of gradually increasing force, the temporary relief is frequently permanent after one or a very few treatments. Exercises designed to increase muscular strength, promote peripheral circulation and overcome muscle spasms should be incorporated as a part of the home or office program of physiotherapy.

Physiologically continued tension will result in fatigue. Muscle fatigue has as its reflection in consciousness a dull aching. We wish to emphasize that the psychogenic backache has a physiologic basis in the muscles of the back and is not an imaginative device of the patient to alibi a visit to the doctor's office.

The treatment of psychogenic rheumatism is not learned in the pharmacologic laboratory. Prognostically and therapeutically these patients group themselves into three divisions. The most favorable cases are those of short duration, whose symptoms are obviously a result of an unusual and severe environmental stress. These individuals have no preceding history of functional disability and, following a detailed telling of

(*Continued on page* 50)

"...about 50% of the patients who consult the general practitioner have complaints for which there is no discoverable physical or organic cause"[1]

Although these patients have no apparent organic basis for their complaints, they are ill and merit attention.

In functional disorders, response to stress is effected via both branches of the autonomic nervous system. Therefore, treatment consists, where possible, in removal of the emotogenic factor (practical psychotherapy) and the "partial blockade" of the efferent autonomic pathways. The family physician is well-qualified to help these patients; his advice will do much to achieve the desired change in habits and to avoid unhealthy situations.

Medical treatment is also essential. Controlled sedation of the entire autonomic nervous system can be accomplished by simultaneous administration of bellafoline (cholinergic inhibitor), ergotamine tartrate (adrenergic inhibitor) and phenobarbital (central sedative) in the form of Bellergal. This preparation inhibits autonomic impulses without completely blocking organ function.

Karnosh and Zucker[2] state that, "Probably the best medication for all neurovegetative disorders is a combination of: (a) bellafoline . . . (b) ergotamine tartrate . . . (c) phenobarbital . . . A good commercial preparation of these ingredients is a tablet called bellergal . . . The adult dose of bellergal is 3 or 4 tablets daily."[3]

BIBLIOGRAPHY

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2. KARNOSH, L. J. and ZUCKER, E. N.: A. Handbook of Psychiatry, St. Louis, Mosby, 1945.

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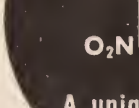
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Literature on request. EATON LABORATORIES, INC., NORWICH, N. Y.

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the story, perceive and accept the connection between the development of their unhappy environment and their tired, aching muscles.

The second group of patients is those whose duration, rather than weeks, is months or years. The history is, usually at least in its superficial cause and effect, apparent to an objective observer. These patients do not believe the significance of external cause resulting in an internal effect as applied to them. Logic will not convince them but will result in antagonism expressed as added assurance on their part that the etiology of their disease lies within their body and that you are insufficiently skilled to detect it. To such a type of patient one may appeal to the alleviating and analgesic properties of happiness. "Their backache will not be cured by increasing social activities, but, while still suffering, life may become more enjoyable." If one can secure acceptance of the analgesic value of happiness in these more chronic sufferers, gradual alleviation of their frustrating environment and consequently their symptoms occasionally occurs. These two groups represent the benign forms of nervousness, in which the major etiology is external to the patient.

The third group of these psychogenic backache patients includes those whose story reveals an inability existing throughout adult life to adjust and be happy in their surroundings. In these individuals we are dealing primarily with a personality defect, a defect in the patient's personality and the external situation is merely the precipitating factor.

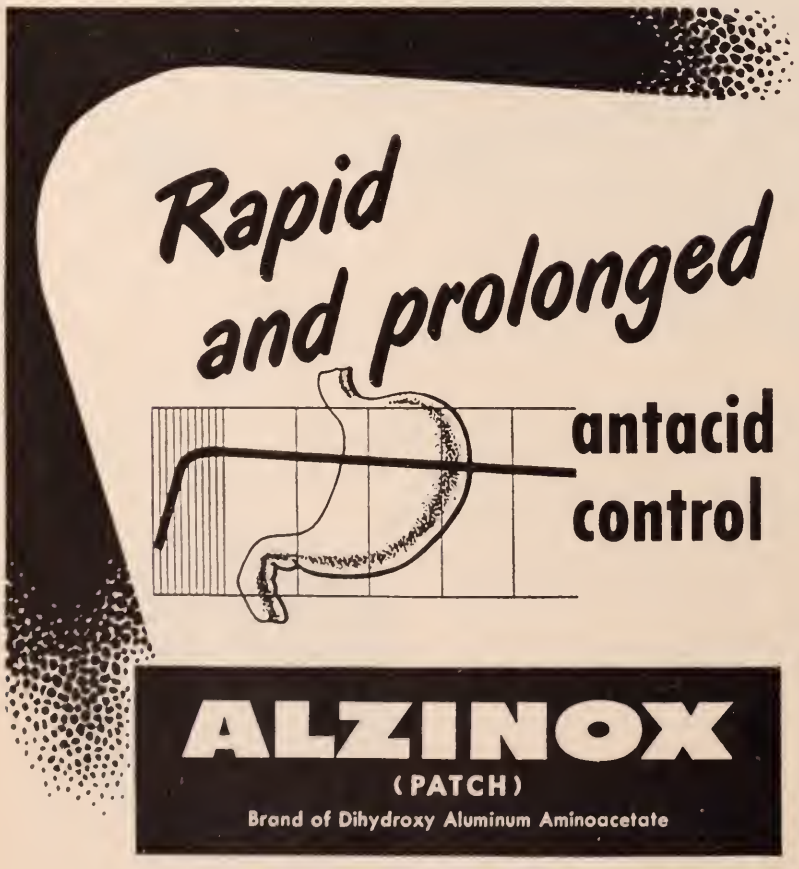
No discussion of psychogenic rheumatism is complete without emphasizing the role of psychiatry in its therapy.

SUCTION SOCKET PROSTHESIS FOR ABOVE-KNEE AMPUTEES

Augustus Thorndike, M.D., Boston, Mass. In THE AMERICAN JOURNAL OF SURGERY, LXXVIII:5:603.

A prosthetic device first patented by Dubois Parmalee of New York in 1863 has again at-

(*Continued on page* 52)



Whether for prompt relief of pain or for continuous control of acidity, both speed of action and prolonged effectiveness are important.

The antacid action of Alzinox develops rapidly and continues long.

A true buffer, Alzinox is acid-neutralizing but not alkalinizing. With glycine incorporated within its chemical structure, high acid-buffering capacity is maintained, yet the aluminum content is 40% less than that of dried aluminum hydroxide on a weight for weight basis.

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ALZINOX TABLETS: 0.5 Gm. (7.7 gr.)—bottles of 100 and 500.

MAGMA ALZINOX: 0.5 Gm. (7.7 gr.) per 5 cc.—bottles of 8 oz.

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'ROBINS'



In Robitussin, Robins now makes available a potent new and different therapeutic weapon for the relief of cough. Its major component is glyceryl guaiacolate, shown by recent dependable investigative techniques to be unexcelled for its intense and prolonged action in increasing R.T.F. (respiratory tract fluid).[1,2,3] Also included in the Robitussin formulation is desoxyephedrine—an adrenergic agent to prevent bronchial spasm[5]—which lifts mood and improves patient's sense of well-being.[4] Robitussin's highly palatable aromatic syrup vehicle appeals to young and old alike. Robitussin makes expectoration easier and freer and diminishes dry, irritating cough. It is non-toxic, non-narcotic.

USES: Acute colds of head and chest, bronchitis, laryngitis, tracheitis, pharyngitis, pertussis, influenza and measles. Helpful as a palliative of harmful cough in tuberculosis, asthma and paranasal sinusitis.

FORMULA: Each 5 cc. (1 teaspoonful) of Robitussin contains:

Glyceryl guaiacolate	100 mg.
Desoxyephedrine hydrochloride	1 mg.

In a palatable aromatic syrup

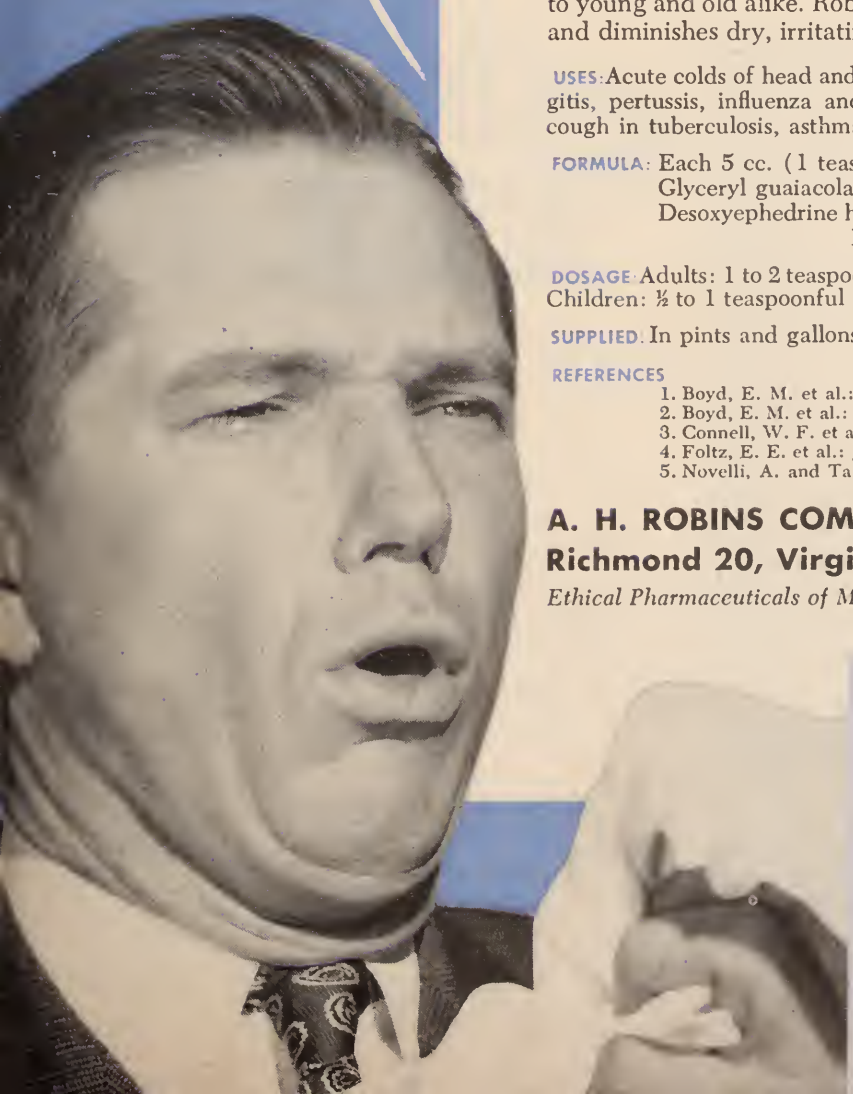
DOSAGE: Adults: 1 to 2 teaspoonfuls, repeated every 2 to 3 hours as necessary. Children: ½ to 1 teaspoonful according to age, 3 or more times daily.

SUPPLIED. In pints and gallons.

REFERENCES

1. Boyd, E. M. et al.: Canadian J. Res., 23:195, 1945.
2. Boyd, E. M. et al.: Canadian M.A.J., 54:216, 1946.
3. Connell, W. F. et al.: Canadian M.A.J., 42:220, 1940.
4. Foltz, E. E. et al.: J. Lab. & Clin. Med., 28:603, 1943.
5. Novelli, A. and Tainter, M. L.: J. Pharmacol., 77:324, 1943.

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to facilitate productive cough . . .
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tracted the attention of the medical profession. Originally utilized in conjunction with a pylon leg attaching the lower extremity prosthesis to the body by suction. Parmelee's idea had been tried in 1885 by Beacock and Sparham in Canada, in 1911 by Toles in California and in 1926 by Underwood in England. To improve the degree of suction the British added a helical groove in the socket lining. Futhermore they re-designed the appliance for use with a metal leg, the inserted bucket being fabricated of wood or papier-mache. In these earlier limbs the valves varied from a simple faucet to a one-way air escape valve. (fig. 1)

To recapitulate, the tentative conclusions on the current experimental use of the suction socket above-knee prosthesis are as follows:

1. The suction socket above-knee prosthesis is described and found to have been fitted to 211 veteran amputees.

2. Complete failures represent 4.3 per cent of the patients.

3. Inasmuch as 58 per cent of the patients have been wearing this prosthesis for four months or less, the favorable results cannot be construed as conclusive evidence for general approval of the suction socket prosthesis.

TREATMENT OF NEUROSYPHILIS WITH PENICILLIN COMBINED WITH ARTIFICIAL FEVER

Norman N. Epstein, M.D. and Jules M. Key, M.D., San Francisco. In ARCHIVES OF DERMATOLOGY AND SYPHILOLOGY, 60:10:543, October, 1949.

Eighty-seven patients with various forms of neurosyphilis were treated with penicillin combined with artificial fever therapy.

Penicillin was administered in two forms: (a) aqueous penicillin sodium, intramuscularly, every three hours around the clock over a fourteen-day period, for a total dose of 4,500,000 units, and (b) penicillin calcium suspended in peanut oil containing 4.5 per cent white wax U.S.P., administered in daily single intramuscular injections of 300,000 units each for twenty days, for a total of 6,000,000 units.

(*Continued on page* 54)



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BETTER

- Prompt hemorrhoidal relief
- Effective decongestant action
- Rapidly emulsifying base
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- Keeps at room temperature

NUMOROIDAL **suppositories**

Formula:
Ephedrine hydrochloride.....0.22%
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in a special emulsifying base.
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Numoroidal Suppositories are supplied in boxes of 12, individually packaged in moisture-proof cellophane.

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- **Potent bacteriostasis**
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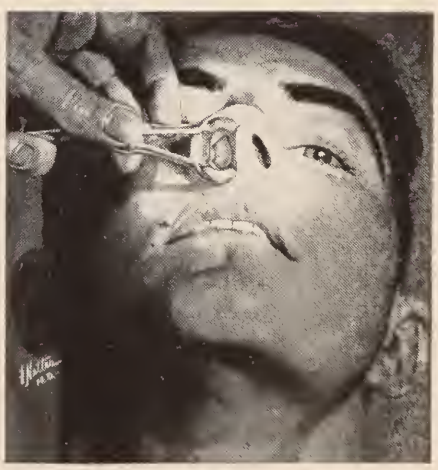
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PAR-PEN contains Council-accepted Aqueous Solution Paredrine Hydrobromide—the vasoconstrictor that produces more rapid, more prolonged shrinkage than ephedrine *without* ephedrine-like central effects. By relieving congestion, the Paredrine opens the way to effective bacteriostasis at the site of infection.

PAR-PEN contains 500 units of penicillin per cc., the accepted strength for local use. Grubb and Puetzer found that local penicillin (500 units per cc.) reduced intranasal bacteria from an average of 7,363 per cc. to 42 per cc. of nasal washings!

J. Lab. & Clin. Med. 32:566

PAR-PEN is non-irritating and non-stinging.
It does not inhibit ciliary action.
It is harmless to nasal mucosa.



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PAR-PEN is packaged in 1 fluid ounce bottles. It contains crystalline sodium penicillin, 500 units per cc.; Aqueous Solution 'Paredrine' Hydrobromide 1%.

Par-Pen

the penicillin-vasoconstrictor combination for intranasal use

Physical Medicine (Continued)

Artificial fever therapy was administered by the blanket method during and subsequent to the penicillin course. Five hours of a temperature over 40 C. (104 F.) was considered a single treatment. Most of the patients received a total of fifty hours of fever therapy.

The data on 55 of the patients treated are presented. Twenty-five of these patients had clinical and serologic evidence of paresis. Fifty-five were observed for from 120 to 365 days, 23 were observed for longer periods, and a few were in their third year of post-treatment observation at the time of writing.

The clinical response in the patients with dementia paralytica and meningovascular neurosyphilis was satisfactory. Little change in the clinical condition was noted in those with tabes dorsalis.

The response in regard to spinal fluid abnormalities was excellent. Definite improvement in the spinal fluid signs was noted in 70 per cent of the patients during the first year of post-treatment observation and in 87 per cent of those observed for a longer period.

The cell count, protein content and colloidal gold reaction of the spinal fluid had a tendency to reverse to normal promptly. The Wassermann reaction did not respond as satisfactorily.

The reactions to serologic tests of the blood became negative in only 14.5 per cent of the patients during the first year of observation. This percentage did not change during the second year of observation.

Two severe Herxheimer reactions in the central nervous system were observed. A rise in temperature during the first twenty-four hours of aqueous penicillin sodium therapy was noted in 14 of 28 patients so treated.

The fever therapy was well tolerated by all but 2 patients.

The combination of penicillin and fever therapy gave better effects in our hands than did chemotherapy combined with fever therapy.

Penicillin therapy of neurosyphilis, although superior to any other single therapeutic procedure, has its limitations.

The effects of artificial fever combined with penicillin therapy should continue to be inves-

(*Continued on page* 56)

Octin - *for Relief of Smooth Muscle Spasm*

Octin is an antispasmodic with both neurotropic and musculotropic action indicated for the treatment of smooth muscle spasm, particularly in spastic conditions of the genitourinary and gastrointestinal tracts. It acts promptly and the relaxation usually lasts three to five hours.

DOSE: Orally, one tablet (2 grains Octin mucate) every three to five hours.

Intramuscularly, ½ to 1 cc. (1 cc. ampule, 0.1 Gm., Octin HCl.) every three to four hours.



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SUPPLIED: 30 grams (1 fl oz.) in Dohony Spray-O-Mizer (Combination Spray and Dropper). *Also for Doctor's office and Hospital use—in Pint bottles.*

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arthritis therapy

With the growing concept of arthritis as a "systemic disease with joint manifestations,"[1] most clinicians today appreciate that constipation and common gastrointestinal dysfunctions are "not only susceptible of betterment but should be included in any wide-angled approach to the [arthritis] problem."[2] Which is why Occy-Crystine is more and more utilized for its dependable (yet non-irritant) cathartic and cholagogue action.

Composition: Occy-Crystine is a hypertonic solution of pH 8.4, made up of the following active ingredients — sodium thiosulfate and magnesium sulfate, to which the sulfates of potassium and calcium are added in small amounts, contributing to the maintenance of solubility.

References

1. American Committee for the Control of Rheumatism, Pemberton, R.: Rev. Gastroenterol., 9:91, 1942.
2. Spackman, E. W. et al: Am. J. M. Sci., 202:68, 1941.

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Physical Medicine (Continued)

tigated because of (1) the known effects of artificial fever on the clinical course and spinal fluid abnormalities of neurosyphilis and (2) the experimental data which indicate that elevation of temperature in vitro and in vivo enhances the spirocheticidal properties of penicillin.

OBSERVATIONS ON "MAJOR" and "MINOR" CAUSALGIA

Francis Echlin, M.D., Frederick M. Owens Jr., M.D. and Warner L. Wells, M.D., Montreal, Canada. In the ARCHIVES OF NEUROLOGY AND PSYCHIATRY 62 (2):8:183. August, 1949.

1. Pain is the central feature of causalgia. Vasomotor and tropic changes are variable and for the most part nonspecific. They are not an essential part of the syndrome.

2. Severe, or major, causalgia resulting from war wounds of large peripheral nerves is commoner than has usually been reported.

3. The majority of patients with major causalgia show gradual spontaneous improvement.

4. The classic syndrome of causalgia is seen in its complete form only during the period that the condition is at its height.

5. As improvement occurs in a case of causalgia, all gradations of intensity in the condition may be seen.

6. During the period of improvement in a case of severe causalgia, the condition may be described as one of minor causalgia.

7. Some patients present the picture of a minor causalgia without ever passing through a phase of severe or major causalgia.

8. Realization that causalgia may exist in a mild, or minor, form is important, as the condition is probably more common in civilian life than generally recognized.

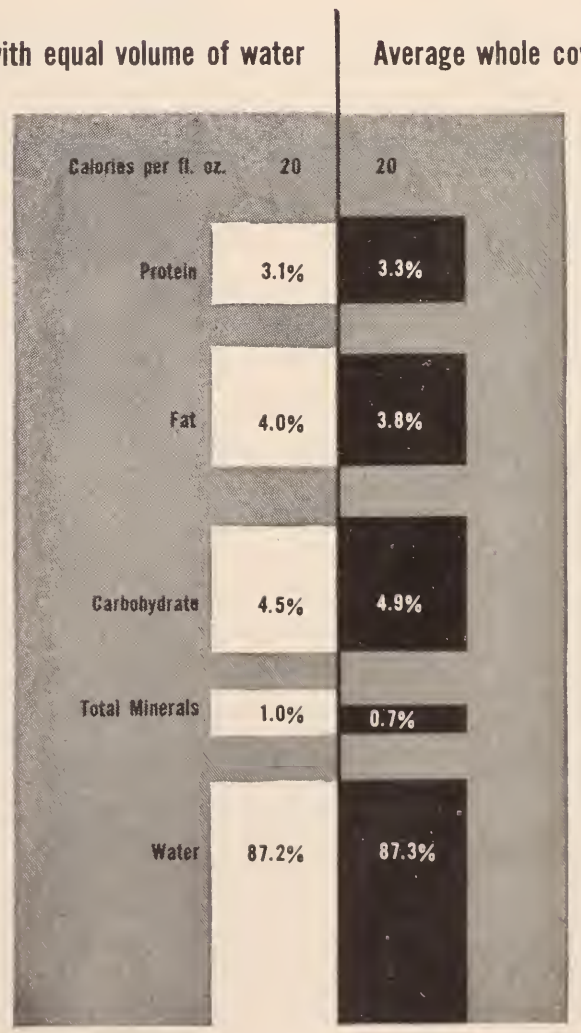
9. The same abnormal mechanisms are apparently operative in all cases of causalgia, regardless of intensity.

10. Although gradual improvement is usual in a case of causalgia, this may not take place for months or even years in some cases. In the interval progressive and irreversible changes may occur in the tissues and perhaps even in the emotional stability of the patient. In addition, the patient may be left wih a disagreeable minor causalgia. Adequate treatment should, therefore, be instituted early.

(Continued on page 58)

Not just milk replacement but casein replacement...

Casein—and also lactalbumin—are frequently the cause of hypersensitiveness to cow's milk. This hypersensitiveness can be manifested by gastrointestinal upsets followed in time by eczema of a mild or acute nature. In such cases cow's milk of all types must be eliminated from the diet. Mull-Soy is the near equivalent for milk to be used in these cases.



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Physical Medicine (Continued)

11. An injured nerve should be appropriately treated on its own merits. Coexisting causalgia may thereby be relieved, especially if neurorrhaphy is the procedure of choice. The individual case of causalgia should be evaluated with respect to its duration, severity and response to the conservative expedients of physical therapy and Sympathetic block. These measures failing, sympathectomy should be done in cases of severe causalgia if sympathetic block has given temporary relief. In such circumstances sympathectomy has been curative in the majority of patients, at least during the period of their follow-up.

THE SHOULDER-HAND SYNDROME: A COMPLICATION OF CORONARY ARTERY DISEASE

A. W. Hilker, M.D., Eau Claire, Wisconsin. In the ANNALS OF INTERNAL MEDICINE, 31:8: (No. 2) 303. August, 1949.

1. Eleven cases that developed a shoulder-hand syndrome as a result of severe coronary insufficiency or myocardial infarction are reported. The symptomatology is discussed and the condition described in its three stages.

2. Two of the 11 cases developed the shoulder-hand syndrome without evidence of acute effort and evidence of left heart failure.

3. The nine remaining cases all had severe myocardial infarction but both had angina with myocardial infarction. All patients had marked electrocardiographic changes, high sedimentation rates, prolonged hypotension, and evidence of forward failure for a week to several weeks following occlusion. In this series of cases no patient developed the shoulder-hand syndrome unless there was myocardial failure and prolonged hypotension. There is an apparent direct ratio between the severity of the myocardial infarction and the development of the shoulder-hand syndrome. It might be stated that the incidence increases in proportion to the size of the infarction.

4. Two of the nine cases developed the far advanced trophic changes described as the third stage. Both had severe anterior myocardial infarction and both had pulmonary complications, providing multiple causes for progression of the syndrome.

(*Continued on page 60*)



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Physical Medicine (Continued)

5. Those patients who regained good myocardial function tended to reverse the shoulder-hand syndrome toward normal, whereas persistent myocardial insufficiency tended to aggravate the shoulder-hand syndrome.

6. Recent neurophysiologic concepts are described as possible explanation of this syndrome and additional factors are suggested as possibly entering into the complex chain of events that are required for the development of the shoulder-hand syndrome.

RHEUMATOID ARTHRITIS

Dean Robinson, M.D., Banff, Alta. In THE CANADIAN MEDICAL ASSOCIATION JOURNAL, 61:2:152, August, 1949.

Rheumatoid arthritis is a constitutional disease, primarily affecting the periarticular structures.

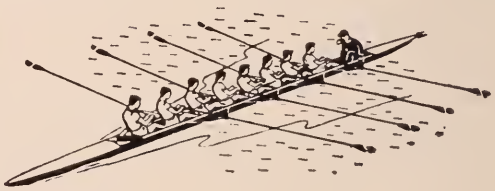
Carefully supervised exercises are commenced by the physiotherapist who visits the patient daily and at first moves the joints through the full range of movement to the point of pain. Later as the soreness disappears and the condition improves, the patient is taught to do the exercises himself. Particular attention is paid to the quadriceps which is the important muscle in walking. Heat is a necessary form of therapy and though any form may be used, the warm deep pool is the most economical. The pool of mineral water has the advantage that the patient can do movements and even walk before he can stand on his feet on the floor. After the first week of rest, the patient is sent to the deep pool or the tub baths where the mineral water is kept at a temperature of 101°. A basic formula of vitamins should be used in all cases, as most of these patients are undernourished and need building up. Gold is started as soon as the diagnosis is made and is continued for twenty-two doses if there is no contraindication.

AN ELECTROMYOGRAPHIC STUDY OF SPASTICITY

D. B. Lindsley, L. H. Schreiner and H. W. Magoun, Departments of Anatomy and Psychology, Northwestern University Medical School, Chicago, Illinois. (Received for publication August 16, 1948). In

(*Continued on page 62*)

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As a sedative-antispasmodic, Solanital exceeds in therapeutic effectiveness even much larger doses of any of its component drugs. Synergistic action among the properly proportioned alkaloids produces *more comprehensive and lasting relief*, while minimizing the side effects of any single ingredient.

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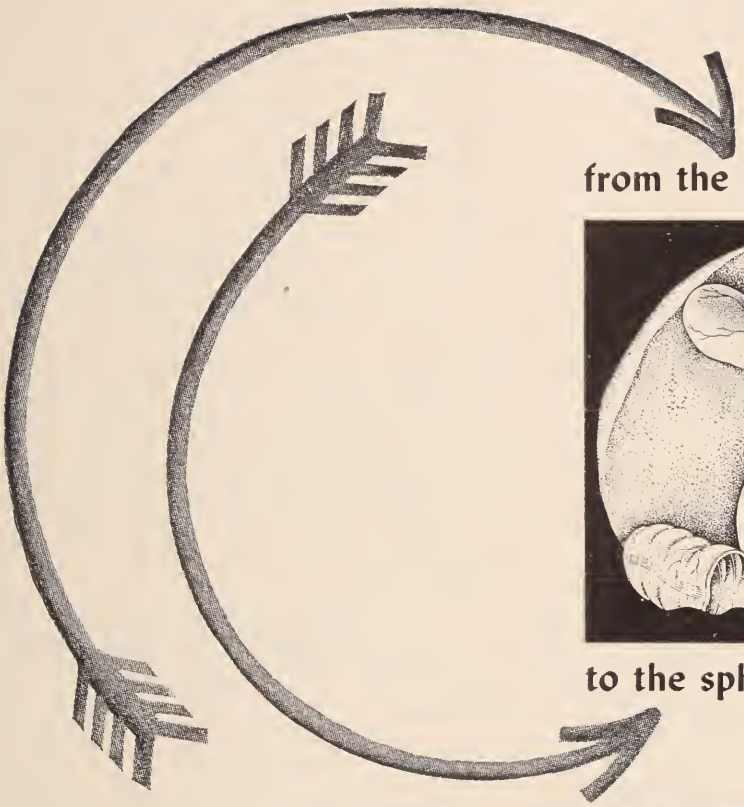
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Scopolamine Hydrobromide	1/400 gr.
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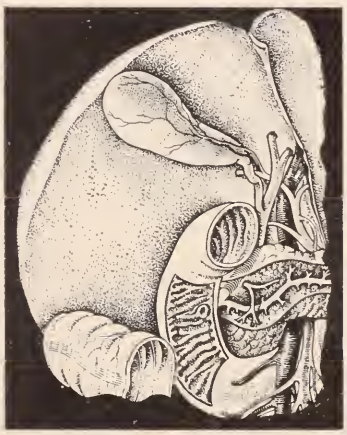
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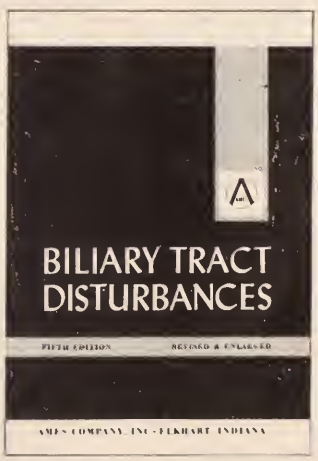
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Physical Medicine (Continued)

JOURNAL OF NEUROPHYSIOLOGY, XII:5: 197: May, 1949.

The exaggerated activity of spinal postural mechanisms, called spasticity, has been recognized from the time of Jackson to be precipitated by injury to neural components normally suppressing postural reflexes. The location of these suppressor cell stations and the organization of their connection with the cord have since been determined in experimental studies. The spasticity which follows injury to these suppressor systems has also received considerable experimental attention, but its appraisal by direct observation has not always provided an ideal basis for further study.

The success of electromyographic investigation of spasticity in man (7-9, 12) has led to the use of this objective technique in studying the effect of lesions of the cat's suppressor areas, made singly and in combination.

SUMMARY

Electromyographic study of spasticity following injury to suppressor systems of the cat's brain indicated that its most characteristic feature was an exaggeration of stretch reflexes, chiefly in antigravity muscles. Threshold was low, response was excessive and its prolongation after stretch was frequent. In addition, tendon reflexes were augmented and repetitive, and commonly induced clonus.

It is almost axiomatic that tuberculosis cannot be controlled as well as we know how to do it when there is a weak health department, a shortsighted appropriation authority, lack of hospital beds, poor community chest or lack of coordinated program for all community health services. William P. Shepard, M. D., Nat. Tuberc. A. Bull., Oct., 1949.

Little can be accomplished in preventive medical service without the intelligent cooperation of the family. The physician rendering such service is therefore primarily a health educator. Although health education in the mass has been adopted by schools, health departments and industries, individual and family instruction is the most effective approach. Every health examination from the prenatal period to old age should be a session in health education, with simple explanation of the reasons for various tests, favorable comment on normal findings and instruction on how deviations from the normal can be overcome or held in check. Such procedures are paramount in winning the confidence of the individual and family in the skill and personal interest of the physician. Henry E. Meleney, M.D., The Milbank Mem. Fund Quart., July, 1949.



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clinical and cosmetic, **in acne therapy**

BOOK REVIEWS



Operations of General Surgery by Thomas G. Orr, M.D., W. B. Saunders Company. 890 pages. 721 Illustrations. $8.00.

This text has the same chapter arrangement as the first edition but important additions and revisions have been made throughout.

The major changes in text and illustrations have been made in amputations, thorax and respiratory system, the breast, circulatory system, abdominal incisions, digestive system, hernia, and the use of antibiotics in general.

In amputations of the lower extremity the author states that any foot amputation proximal to the Lisfranc is of very doubtful value, and that it is far better to jump from the lisfranc to the Syme. He leaves out the various operations between as unsatisfactory from the standpoint of future function with artificial appliances.

However, a method has been presented elsewhere whereby all amputations through the foot can be stabilized at the time of surgery, thus obviating deformity and painful and useless stumps.

The technique for various types of gastrostomy is excellent for the teaching of students, as any textbooks today do not even mention them but go on to some extensive technical procedure over and beyond the scope and comprehension of the average surgeon. Remember that the average surgeon still does the bulk of general surgery.

The many chapters on the various systems are discussed in detail and liberally illustrated, taking into account many other authors, techniques, and views. This makes the text really interesting reading. With the author's own views and experience the text is doubly valuable. Especially noted is stomach and colon work.

The value of Cooper's ligament is justly brought out. The weak spot in this operation with the transversalis adequately sutured to Cooper's ligament and the internal ring closed about the cord with a stitch placed in the transversalis fascia — is lateral to the cord. In several recurrences which I did not originally operate, the area lateral to the cord is where the recurrence occurred.

I ordinarily place one or two interrupted sutures lateral to the cord as well as the sutures already described. Where this has been done no recurrences have occurred.

In the operation for fracture of the tibial condyle I have found that a triangular block of bone cut from the upper tibia through the same incision for repair of the fracture is superior to multiple pieces of bone. The triangle is cut so that it fits snugly and accurately the triangular defect when the tibial plateau is raised. A long metal screw may also be introduced to help immobilize the tibial plateau fragment during healing. The screw may be subsequently removed under local anesethesia when it has served its purpose.

Under the scalenus anticus syndrome I have found resection of a portion of the muscle necessary. In all instances there was a wide defect overlying the subclavian artery due to retraction of the muscle proximally.

The therapeutic indications and results of intravenous use of novocaine might well be included.

The use of the illustrations for the technique of the Manchester operation is certainly to be commended. It is an old procedure which has not to this day been supplanted by any superior technique in most hands.

The book serves admirably the purpose for which it was published — namely to bring to most surgeons a great many of the most useful operations over a great number of years, adding those which have proven themselves to be superior to procedures in the past.

R. J. B.

PHYSIOLOGY OF THE NERVOUS SYSTEM by John Farquhar Fulton, O.B.E., M.D., D.Sc., LLD. Third Edition Revised Oxford University Press, New York.

This excellent text on the Physiology of the Nervous System is a Third Edition Revised. It is by far the only one of its kind and fills a much needed desire for those in the field of neuro-physiology including the men in the laboratory and in the medical practice of neurology. The progress in this field has been unusually rapid and the author in revising the other editions has brought forth all of the new significant developments. The significance of secondary sensory and motor areas in the cerebral cortex are elucidated in this edition. Fulton discusses the inhibitory and facilitatory areas in the reticular formation, the suppressor areas of the cerebral cortex as well as those of the anterior cerebellum. The important autonomic centres of the forebrain; the disclosure that localization exists in the anterior cerebellum and the changing rate of stimulation of nearly any excitable focus in the cerebral nervous system alters the character of the response, etc. are fully delved into by the author. Frontal lobotomy by Moniz and changes observed by Jacobsen in chimpanzees are discussed from the standpoint of accurate localization of the specific projections necessary to be severed in order to secure the desired result. There are 667 pages and 139 figures with an extensive bibliography of an unusually large number of contributors in neurophysiology. This book is a must for every neurophysiologist as well as for every clinical neurologist who is interested in anatomy, physiology and their behavioral changes. Such a book will help the clinician in an untold amount of instances.

T. T. S.

CLINICAL ASPECTS AND TREATMENT OF SURGICAL INFECTIONS by Frank Lamont Meleney, M.D., F.A.C.S. W. B. Saunders Company. 840 pages. 287 Illustrations. $12.00.

The book is well titled "Clinical Aspects and Treatment of Surgical Infections".

The many systems of the human body are presented individually or in combinations with another where they are closely associated.

Meleney has written, supervised and done most of the work. He is ably assisted by Lockwood, Harvey, Longacre, Sandusky and others to whom he gives ample credit.

Where single articles have been published previously in many isolated geographic areas, Meleney has accumulated, studied, used and correlated this huge work. The result being that we now have in a single volume the cream of the clinical aspects and treatment of surgical infections.

This work goes back over twenty-five years and is brought up to date including the use of the sulfonamides, penicillin and bacitracin.

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The chapters on the lungs and pleura, genital and urinary tracts, peritoneum, bones and joints and surgical septicemia are especially commendable.

The volume is especially well documentated and liberal with illustrations, charts and photographs.

This is an excellent piece of work.

R. J. B.

BRAIN TUMORS AND CARE OF THE NEUROSURGICAL PATIENT by Ernest Sachs, A.B., M.D. C. V. Mosby Company. 552 pages. 348 Illustrations. $15.00

The second edition of this book is a culmination of two previous separate books, namely "The Diagnosis and Treatment of Brain Tumors" and "The Care of the Nerousurgical Patient Before, During and After Operation".

Thus this volume brings up to date the work published in 1931 and 1945 respectively. The original books have been revised and brought up to date.

The volume deals primarily with brain tumors, while spinal tumors, intervertebral discs and peripheral nerves have been given a minor role.

The outstanding principles brought out through the entire volume is meticulous attention to detail. Typical neurosurgical operations are described in detail and illustrated exceptionally well with case histories and drawings.

It was particularly delightful to see that surgical house officers looked after every phase of the case themselves, including heart, lungs, and all other laboratory and medical problems.

The role of operating room nurses, instrument nurses, anesthetists, and regular operating room teamwork is again restated and emphasized.

The value of one man's experience is put down here for all to gain therefrom. This one man's experience is the summation of teaching and knowledge which in turn has been passed on to him by others, as well as original observations and again that meticulous attention to detail in which lies the extremely important end result of whether the patient lives or dies — is cured, or remains pathological.

Case histories included give an extremely clear picture of entire cases and are to be commended for clinching the point in question.

This book will serve as a valuable guide to others.

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BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

CLINICAL PATHOLOGY: Application and Interpretation: By Benjamin B. Wells, M.D., Ph.D., Professor of Medicine, University of Arkansas School of Medicine, Little Rock, Arkansas. 397 pages with 32 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price $6.00.

ELECTROCARDIOGRAPHY: Fundamentals and Clinical Application: By Louis Wolff, M.D., Visiting Physician, Consultant in Cardiology and Chief of the Electrocardiographic Laboratory, Beth Israel Hospital; Associate in Medicine, Harvard Medical School. 187 pages with 110 figures. Philadelphia & London: W. B. Saunders Company, 1950. Price $4.50.

QUESTIONS: Medical State Board and Answers (New, 8th Edition): By R. Max Goepp, M.D., Formerly Professor of Clinical Medicine, Graduate School of the University of Pennsylvania, and Professor of Medicine, Woman's Medical College of Pennsylvania; and Harrison F. Flippin, M.D., Associate Professor of Medicine at the Graduate School of the University of Pennsylvania. New, 8th Edition. 663 pages. Philadelphia & London: W. B. Saunders Company, 1950. Price $7.00.

THE PHYSIOLOGY OF THOUGHT a functional study of the human mind in action: By Harold Bailey, M.D., F.A.C.S., 313 pages. New York, The William-Frederick Press, 1949. Price $3.75.

PRIMER OF ALLERGY: By Warren T. Vaughan, M.S., M.D., Richmond, Virginia, with illustrations by John P. Tillery: Third Edition: Revised by J. Harvey Black, M.D., Dallas, Texas. 176 pages, St. Louis, The C. V. Mosby Company, 1950. Price $3.50.

ESSENTIAL UROLOGY: By Fletcher H. Colby, M.D., Chief of the Urological Service, Massachusetts General Hospital; Assistant Clinical Professor of Genito-Urinary Surgery, Harvard Medical School, Boston, Massachusetts; Urological Consultant, Lakeville State Sanitorium, Middleboro, Massachusetts; 580 pages. Baltimore, The Williams & Wilkins Company, 1950. Price $8.00.

THE SALT-FREE DIET COOK BOOK: By Emil G. Conason, M.D. and Ella Metz: 137 pages. New York, Lear, 1949. Price $3.00.

PRINCIPLES OF PSYCHODYNAMICS: By Edoardo Weiss, M.D., 268 pages. New York, Grune & Stratton, 1950. Price $4.00.

DISEASES OF THE FOOD: By Emil D. W. Hauser, M.S., M.D., Associate Professor of Bone and Joint Surgery, Northwestern University Medical School; Attending Orthopedic Surgeon, Passavant Memorial Hospital, Chicago. Second Edition, Illustrated, 415 pages. Philadelphia & London, 1950. Price $7.00.

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SYSTOLIC MURMUR IN CHILDREN

. . .In evaluating any heart murmur, it is necessary to enumerate several characteristics. First, after noting whether the murmur is systolic or diastolic in time, the location of the maximal intensity of the murmur must be noted, that is, in which of the several "valve areas" the murmur is best heard. The loudness of the murmur itself should then be noted, that is, whether it is very faint or very loud or of some intervening intensity. Levine has graded murmurs according to their intensity from grade one through grade six, the latter being the loudest. This is a convenient method of deciding the intensity of the murmur but the interpretation varies with each individual examiner, depending on his experience. Just as convenient, and a method which for many examiners is easier, is to describe a murmur as to whether it is very faint, moderately faint, moderately loud, or very loud; but whichever method is used, it should be used consistently, so that one may always compare the intensity of murmurs at different times in the same patient. This gradation is very important in deciding whether one will consider a murmur functional or not. Almost all functional murmurs are faint murmurs.

The quality of the murmur is of great importance. It should be classified as blowing, rumbling, rough, or harsh. Functional murmurs are blowing in character, as well as being faint.

The transmission of the murmur is also of importance. Transmission is determined by the loudness of the murmur together with the nearness of the heart to the stethoscope. In general any murmur which is transmitted fairly widely is a loud murmur; functional murmurs are not loud, and therefore are not transmitted as a general rule, at least not over a wide area.

The time during systole that the murmur is heard, and its duration, should be noted. Functional murmurs seldom begin with or immediately follow the first sound; there is almost always a short gap between the end of the first sound and the beginning of the faint blowing functional systolic murmur. *Excerpt, Difficulties in Evaluating Systolic Murmurs in Children With Special Reference to Functional Systolic Murmur, Marlow B. Harrison, M.D., San Francisco, California Medicine,* 1949.

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WARN OF DANGER FROM CLEANING FLUID VAPOR

Severe poisoning may result from inhaling vapors of noninflammable cleaning fluids, according to three doctors of the General Electric Company.

The warning was contained in an article in the January issue of Archives of Industrial Hygiene and Occupational Medicine, published by the American Medical Association.

Carbon tetrachloride, a solvent used in the fluids, is highly poisonous when breathed as a concentrated vapor or taken internally as a liquid, Drs. W. D. Norwood, P. A. Fuqua and B. C. Scudder of the Hanford Works, Richland, Wash., said.

(Dr. Walton Van Winkle Jr., Chicago, secretary of the Therapeutic Trials Committee of the A.M.A.'s Council on Pharmacy and Chemistry, said that most of the noninflammable types of cleaning fluid are carbon tetrachloride.)

The General Electric doctors pointed out that the label on cleaning fluid sold for use in the home rarely states that the fluid contains carbon tetrachloride in a high concentration, and urged that action be taken on a national scale to provide for more stringent labeling of the compound.

"Toxic reactions to carbon tetrachloride may result from a single brief exposure to a high concentration of the vapor, from prolonged or repeated exposure to a moderately high concentration or from regular daily exposure to low concentrations in excess of accepted safe limits; from repeated contact of the skin with the liquid or from ingestion of the liquid," they said.

"During the last 12 months, in two communities, we have observed two fatalities, one near fatality and four other cases requiring hospitalization of the patient due to carbon tetrachloride poisoning."

The doctors added:

"We believe that the present label gives the user a greater sense of security than is warranted and that many deaths occur from domestic use where no warning label is required.

"We feel that carbon tetrachloride sold in any quantity should be labeled and that the label should read:

"Volatile Solvent—Poisonous (Usual skull and crossbones). One teaspoonful taken by mouth may be fatal. The fumes from one cupful breathed in a poorly ventilated place may cause death. Use with adequate ventilation. Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with skin. Do not take internally."

Carbon tetrachloride causes damage to the liver, and persons under the influence of alcohol during exposure usually sustain much more severe poisoning than persons not using alcohol, according to the article.

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used in fire extinguishers, in the manufacture of refrigerants and insecticides and in degreasing of industrial equipment and extraction of oils.

The doctors also reported 51 cases of exposure to carbon tetrachloride in industry resulting from improper working conditions.

USE PENICILLIN TO PREVENT RHEUMATIC FEVER RECURRENCE

Encouraging results from use of penicillin to prevent recurrence of rheumatic fever in children are reported by a Chicago research group.

"The recurrence rate was zero in the penicillin-treated group compared with 11 and 19 per cent in control groups," Kate H. Kohn, M.D., Albert Milzer, Ph.D., and Helen MacLean, A.B., of Michael Reese Hospital say. Their study appears in the Jan. 7 Journal of the American Medical Association.

Rheumatic fever commonly affects children and often results in permanent and serious damage to the heart. The disease is related to infection of the upper respiratory tract with streptococcus microbes.

All the children studied had recovered from an acute attack of rheumatic fever and were living in their own homes and attending public school.

"They present a different problem from children residing in the controlled atmosphere of the hospital or convalescent home, not only because they are exposed to infections prevalent in the general community, but also because medical care, especially of seemingly mild respiratory infections, frequently is delayed," the researchers say.

A hundred and twenty-six children were chosen and divided into two groups equal in sex, race, age and economic level. One group received penicillin tablets for periods covering a week or more of each month during three school years. The second group received no medication. A third and comparable group also was used as a control.

The penicillin was effective in significantly reducing the incidence of streptococcic infections in the throats of the children, the researchers found.

This observation and the difference in recurrence rates in the penicillin-treated group and the non-treated groups are "sufficiently encouraging to warrant continued study," the researchers say.

As tuberculosis, in some aspect, is the concern of every practitioner in whatever specialty, so its teaching is the responsibility of the entire medical faculty. The phthisiologist's concern is with the segment of the problem which lies within the field of internal medicine. As the thoracic surgeon is primarily a surgeon, so the phthisiologist is primarily an internist. The more he can participate with other internists in joint clinical research and teaching enterprises the better will be the education of the students who are under their mutual guidance. Carl Muschenheim, M.D., Am. Rev. Tuberc., July, 1949.

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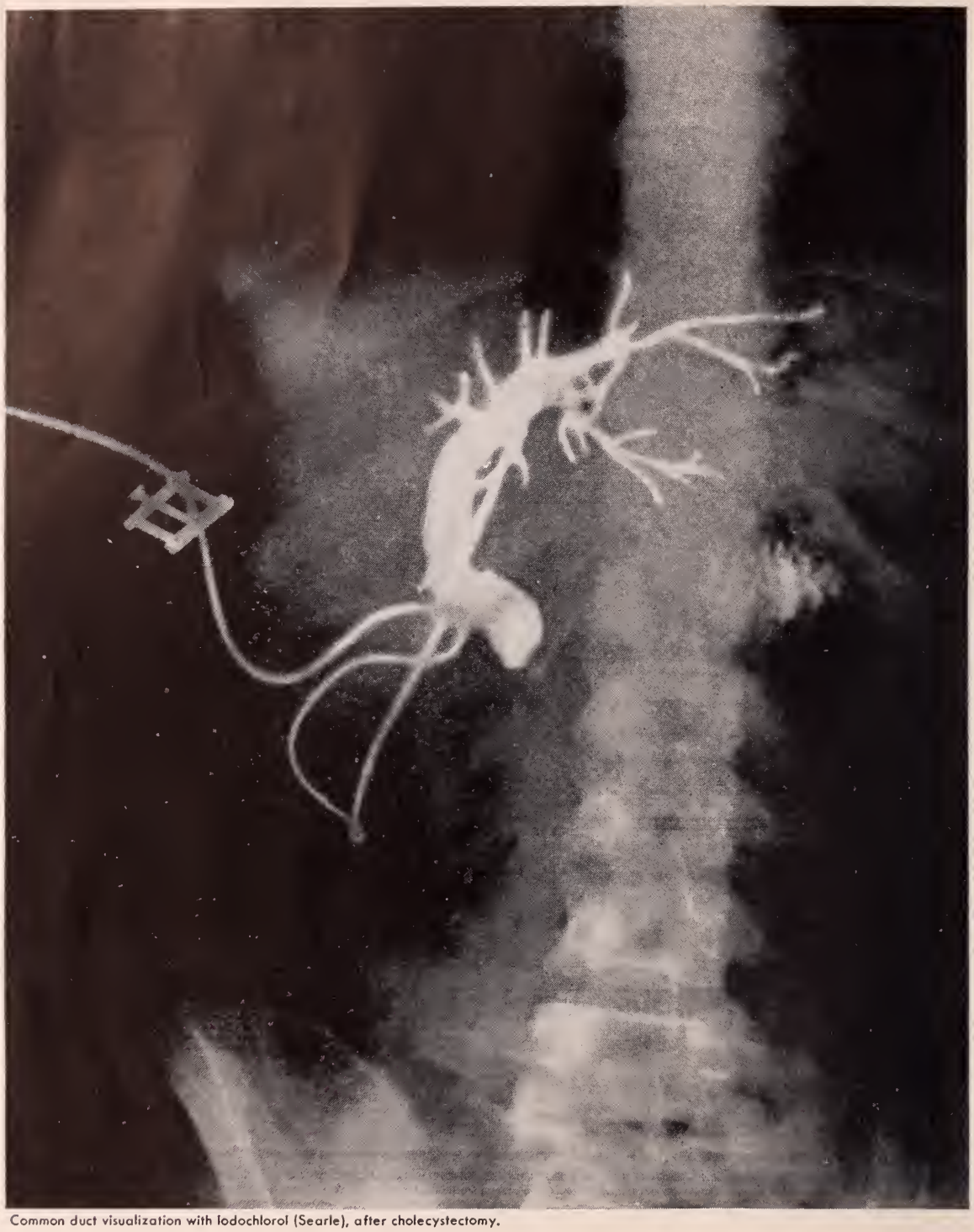
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Severe Anemia Secondary to Diaphragmatic Hiatus Hernia

(See page 5 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY



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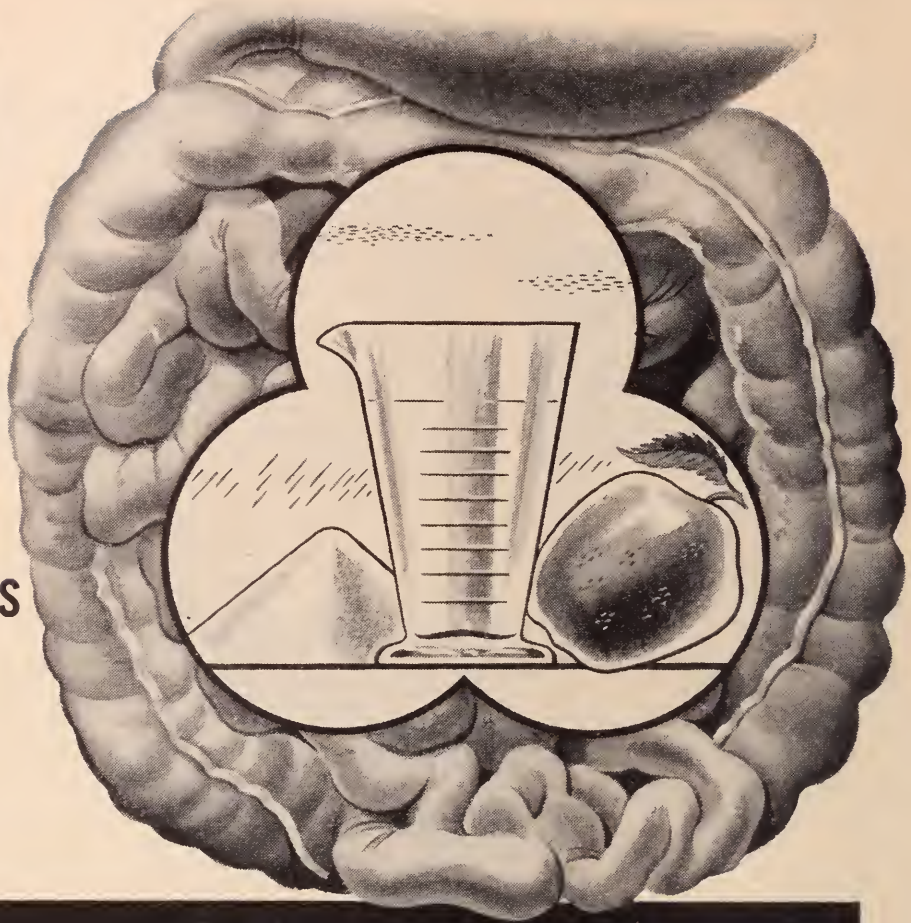
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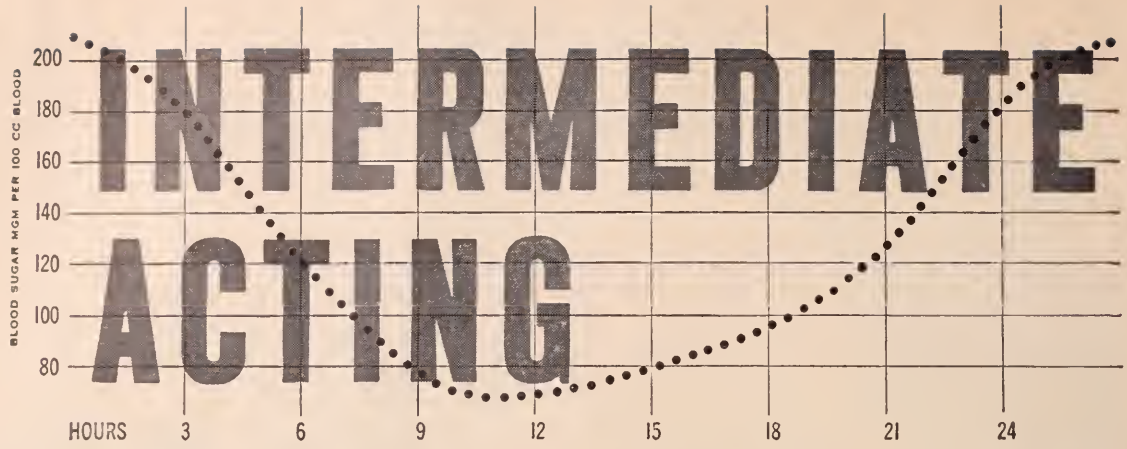
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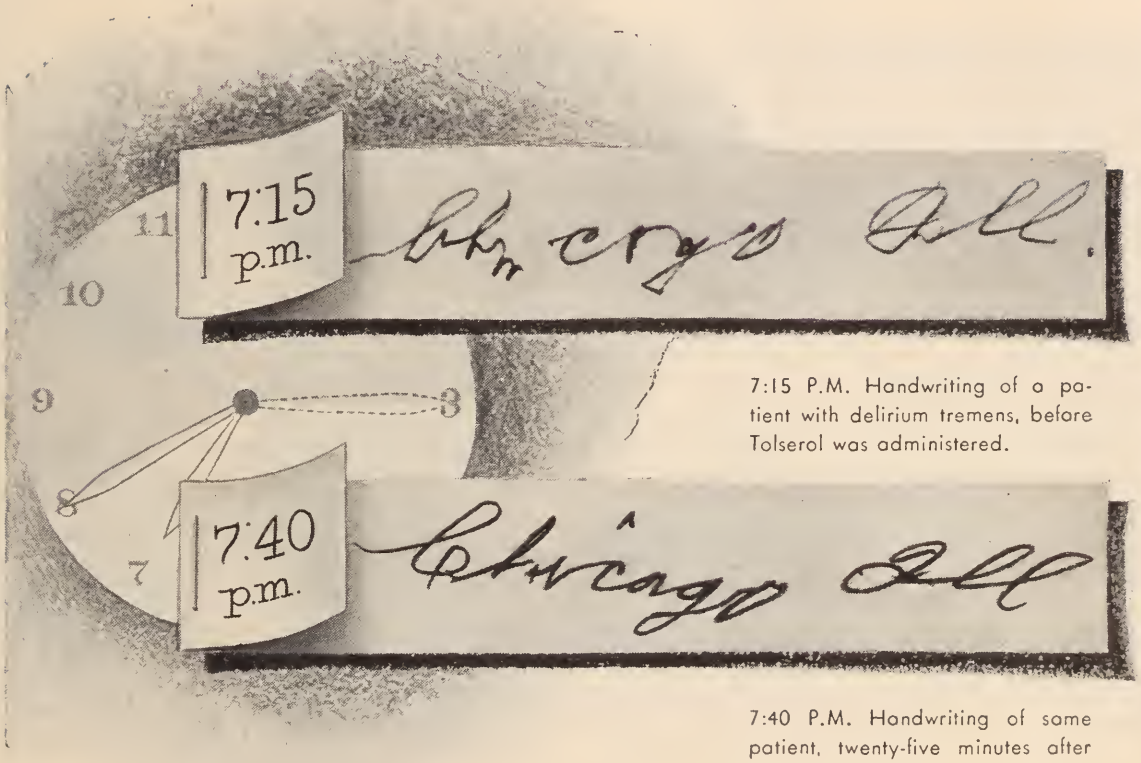


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1. Rohr, J.H., and Colwell, A.R.: Arch. Int. Med. 82:54, 1948.
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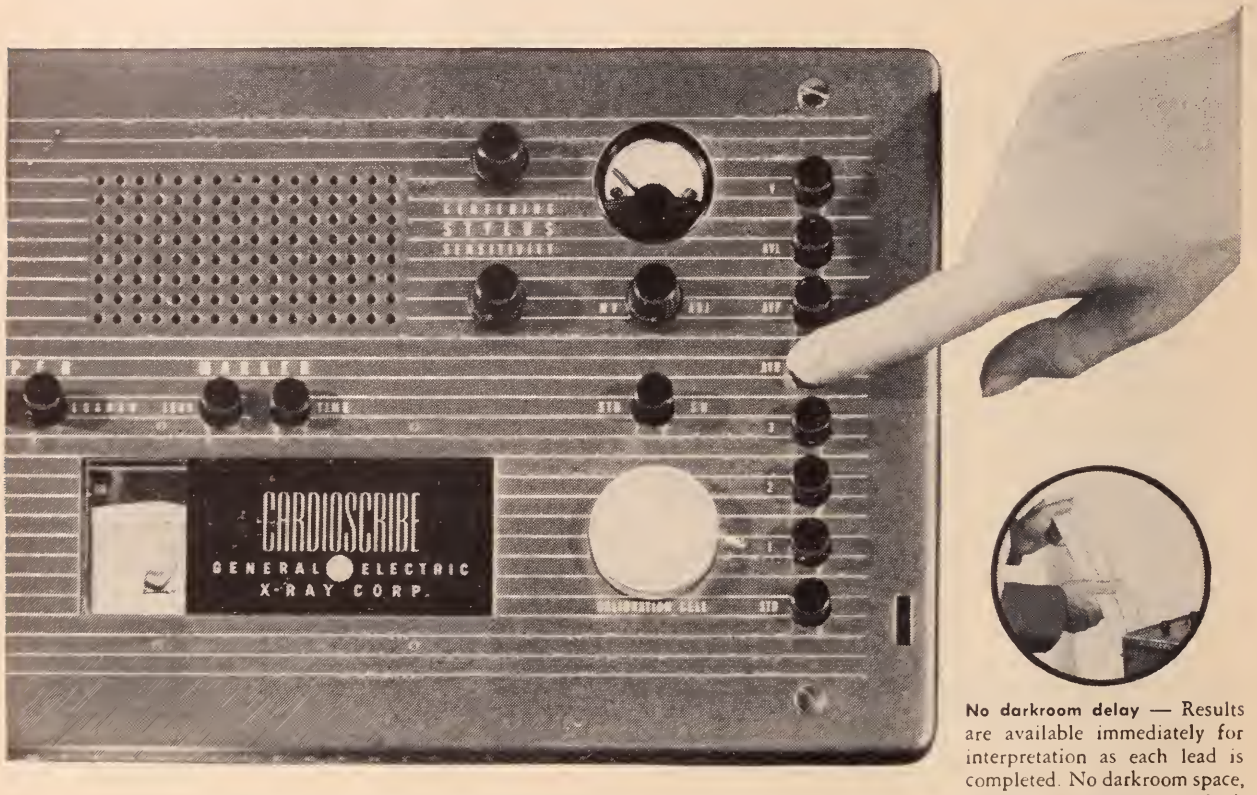
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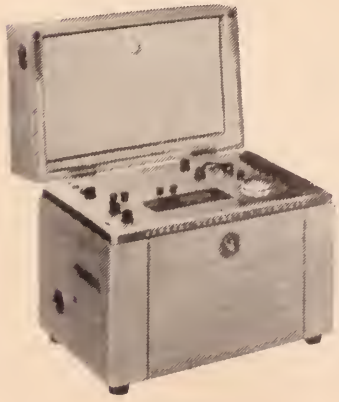


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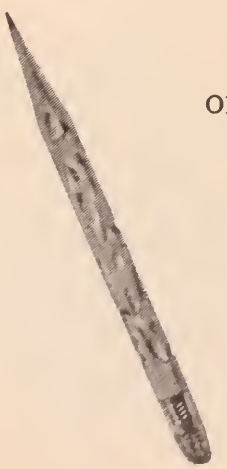
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pathological ward."

Harding, T.S.: M. Rec. 160:198, 1947

For the many patients, especially women, who complain of nervous tension throughout the day and wakefulness during the night, ESKAPHEN B ELIXIR is an ideal preparation.

ESKAPHEN B ELIXIR provides both the calming action of phenobarbital (¼ gr. per 5 cc.) and the tone-restoring effect of thiamine (5 mg. per 5 cc.).

Eskaphen B Elixir



The delightfully palatable combination of phenobarbital and thiamine.

Smith, Kline & French Laboratories, Philadelphia



Patient under Treatment

FOR URINARY

TRACT INFECTION

meantime enjoys

Gratifying Relief

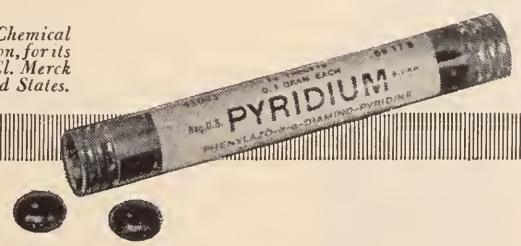
from distressing

symptoms

With orally administered Pyridium—an effective, *safe* urinary analgesic—physicians can give patients with urinary tract infection prompt relief from such symptoms as urinary frequency and pain and burning on urination.

Pyridium in therapeutic dosage is virtually nontoxic and may be administered throughout the course of treatment with streptomycin, penicillin, the sulfonamides, or other specific therapy.

Pyridium is the trade-mark of Nepera Chemical Co., Inc., successor to Pyridium Corporation, for its brand of phenylazo-diamino-pyridine HCl. Merck & Co., Inc. sole distributor in the United States.



The complete story of Pyridium and its clinical uses is available upon request.

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(Brand of Phenylazo-diamino-pyridine HCl)

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AUREOMYCIN

HYDROCHLORIDE LEDERLE

in Coliform Infections

Aureomycin has been found to exert a dramatic effect in the treatment of *Escherichia coli* infections; including peritonitis, bacteremia, urinary infections, meningitis and brain abscess. The prognosis in many of these infections has in the past been guarded, but the advent of aureomycin renders prompt recovery more likely.

Aureomycin



Capsules: Bottles of 25, 50 mg. each capsule.
Bottles of 16, 250 mg. each capsule.

Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

Aureomycin has also been found effective for the control of the following infections: African tick-bite fever, acute amebiasis, bacterial and virus-like infections of the eye, bacteroides septicemia, boutonneuse fever, acute brucellosis, Gram-positive infections (including those caused by streptococci, staphylococci, and pneumococci), Gram-negative infections (including those caused by the coli-aerogenes group), granuloma inguinale, *H. influenzae* infections, lymphogranuloma venereum, peritonitis, primary atypical pneumonia, psittacosis (parrot fever), Q fever, rickettsialpox, Rocky Mountain spotted fever, subacute bacterial endocarditis resistant to penicillin, tularemia and typhus.

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Multi-Vi Drops Supply

what the average infant requires

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Multi-Vi Drops

Water Miscible . . .
vitamin D chemically identical to that of cod liver oil . . .
Non-Alcoholic . . .
Inexpensive . . .
Very palatable . . .



Formula: Each 0.6 cc. contains:

Vitamin A	5000 U.S.P. units
Vitamin D_3	1000 U.S.P. units
Thiamine Hydrochloride	1.0 milligram
Riboflavin	0.4 milligram
Pyridoxine Hydrochloride	1.0 milligram
Sodium Pantothenate	2.0 milligrams
Nicotinamide	10.0 milligrams
Ascorbic Acid	50.0 milligrams

Bottles of 10 cc. and 30 cc.
(with calibrated droppers).

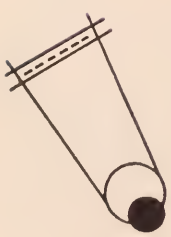
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IN LOCAL ANTIBIOTIC THERAPY

Virtually eliminates the threat of hypersensitivity

BACITRACIN OINTMENT

CSC



Bacitracin Ointment-C.S.C. contains 500 units of bacitracin per gram in a petrolatum base. Available in ½ and 1 ounce tubes.

The one serious drawback to local antibiotic therapy—the tendency to development of local allergic reactions—is largely overcome when Bacitracin Ointment-C.S.C. is employed. The low index of allergenicity of this antibiotic is one of its outstanding features, and has been emphasized in a recent publication.*

Bacitracin Ointment-C.S.C. contains 500 units of bacitracin per gram. It has produced excellent results in the treatment of ecthyma, infectious eczematoid dermatitis, folliculitis, sycosis vulgaris, and pyoderma gangrenosum. In decubitus ulcer it not only controls the infection promptly but also encourages more rapid healing. Impetigo contagiosa responds particularly well, many cases completely clearing up within 48 hours of the initiation of therapy.

*Derzavis, J. L.; Rice, J. S., and Leland, L. S.: Topical Bacitracin Therapy of Pyogenic Dermatoses; a Clinical Report, J.A.M.A. *141*:191 (Sept. 17) 1949.

C.S.C. Pharmaceuticals

A DIVISION OF COMMERCIAL SOLVENTS CORPORATION, 17 EAST 42ND STREET, NEW YORK 17, N. Y.

"An ideal antiseptic in

...acute and chronic infections

of the conjunctiva"[1]



SODIUM SULFACETIMIDE SOLUTION 30%

(Sodium SULAMYD®)

Eye Drops



because

* it is the only sulfonamide which can be prepared in concentration as high as 30 per cent.
* it penetrates ocular tissues rapidly, appearing within the substance of the cornea in fifteen minutes.[2,3]
* it has a broad antibacterial spectrum encompassing all common eye pathogens.[4-6]
* it is safe; systemic absorption from topical application is nil, and allergic reactions are rare.
* it produces no local irritation or tissue damage.[7,8]

Dosage: One drop in affected eye every two or three hours, reducing frequency as improvement occurs.

Also available are SODIUM SULFACETIMIDE OPHTHALMIC OINTMENT 10% and SODIUM SULFACETIMIDE NASAL SOLUTION 10%. The latter is effective for temporary relief of symptoms of rhinitis and as an aid for prevention of its complications.

Bibliography: (1) Mayer, L. L.: Arch. Ophth. *39*:232, 1948. (2) Robson, J. M., and Tebrich, W.: Nature, London *148*:695, 1941. (3) Robson, J. M. and Tebrich, W.: Brit. M. J. *1*:687, 1942. (4) Helmholz, H. F.: Proc. Staff. Meet., Mayo Clin. *17*:529, 1942. (5) Alvaro, M. E.: Am. J. Ophth. *28*:497, 1945. (6) Hirsch, J.: Compt. rend. Soc. Turq d. sc. phys. et. nat. (13), 1945-6. (7) Dickson, R. M.: Brit. J. Ophth. *26*:529, 1942. (8) Kuhn, H. S.: Tr. Am. Acad. Ophth. (May-June) 1946.

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SULFONAMIDES
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If the patient likes candy, he'll like the DUOZINE *Dulcet* Tablet. It's a pale orange cube the child can eat like candy, that tastes like candy all the way down—absolutely nothing about it to even remind the child of medicine. Yet, each tablet contains equal parts of sulfadiazine and sulfamerazine, as pure, stable and accurate as it is possible to compound. Indications and dosage are the same as for unflavored tablets. DUOZINE *Dulcet* Tablets are available in two sizes, the regular 0.3 Gm. and the half-size 0.15 Gm., through pharmacies everywhere in bottles of 100. For more complete information on DUOZINE and other sulfonamide *Dulcet* Tablets, write to ABBOTT LABORATORIES, North Chicago, Illinois.

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Specify Abbott's Sulfadiazine-Sulfamerazine Combination

DUOZINE DULCET®

TRADE MARK

Tablets

0.3 Gm. and 0.15 Gm.

(Sulfadiazine-Sulfamerazine Combined, Abbott)

®Medicated Sugar Tablets, Abbott

NOW. . . . *to protect the failing heart from a dangerous added strain . . .*

NITRANITOL®

with Phenobarbital and THEOPHYLLINE

Your hypertensive patient with a failing heart may present a condition dangerously complicated by edema. Unrelieved by diuretic help, this added strain, of course, can hasten cardiac failure.

In such cases, you'll welcome Nitranitol with Phenobarbital and *Theophylline* to provide powerful diuretic action and myocardial stimulation . . . along with sedation and Nitranitol's familiar, safe, gradual, prolonged vasodilation.

Nitranitol is available in these forms:

- **When the threat of cardiac failure exists.** *Nitranitol with Phenobarbital and Theophylline.* (½ gr. mannitol hexanitrate combined with ¼ gr. Phenobarbital and 1½ gr. Theophylline.)
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- **For extra protection against hazards of capillary fragility.** *Nitranitol with Phenobarbital and Rutin.* (Combines Rutin 20 mg. with above formula.)
- **When vasodilation alone is indicated.** *Nitranitol.* (½ gr. mannitol hexanitrate.)

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CINCINNATI • U.S.A.



The concept that allergic tissue responses are important contributory factors in upper respiratory infections has been widely accepted. To combat these allergic manifestations more effectively, the time-tested, dependable decongestant—Neo-Synephrine hydrochloride— has been combined with a new, highly active antihistaminic—Thenfadil hydrochloride.

Neo-Synephrine® Thenfadil

HIGHLY EFFECTIVE DECONGESTANT ANTIHISTAMINIC

For symptomatic control of the common cold, allergic rhinitis including hay fever, vasomotor rhinitis and sinusitis.



Well Tolerated—No Drowsiness—Neo-Synephrine Thenfadil nasal solution in clinical tests was well tolerated except for a transitory stinging in a few cases. There was essential freedom from central nervous system stimulation: trepidation, restlessness, insomnia; neither was there drowsiness.

Effective—In common colds, allergic rhinitis including hay fever, vasomotor rhinitis, and sinusitis, excellent results were reported in nearly all cases. There was prompt, prolonged decongestion without compensatory vasodilatation. Repeated doses did not reduce the consistent effectiveness.

Dose: 2 or 3 drops up to ½ dropperful three or four times daily. Neo-Synephrine Thenfadil solution contains 0.25 per cent Neo-Synephrine hydrochloride and 0.1 per cent Thenfadil hydrochloride (N, N-dimethyl-N'-(3-thenyl)-N'-(2-pyridyl) ethylenediamine hydrochloride) in an isotonic buffered aqueous vehicle. Supplied in bottles of 30 cc. (1 fl. oz.) with dropper.

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Neo-Synephrine, trademark reg. U. S. & Canada, brand of phenylephrine
Thenfadil, trademark

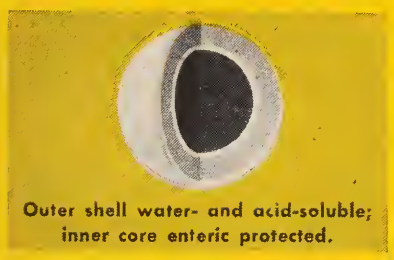
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Digestive Trouble-Shooter with "peptomatic" action*

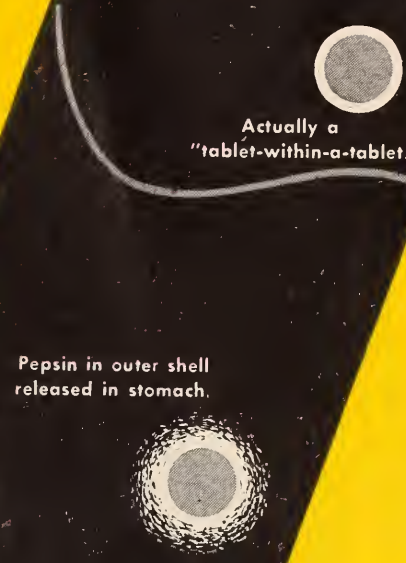
Faced with complex digestive disturbances so frequently therapy-elusive, more and more physicians are utilizing Entozyme's highly effective triple-enzyme digestional aid in small-tablet form. Actually, a "tablet-within-a-tablet" (containing pancreatin, pepsin and bile salts), the secret of Entozyme's success lies in its unique "peptomatic" action*, which selectively deposits each digestive ferment at its proper gastro-intestinal level, in its optimal state of enzymatic activity. Entozyme's value has been well established clinically [1,2,3] in such conditions as chronic cholecystitis, chronic duodenal ulcer, acute and chronic pancreatitis and certain postoperative syndromes of the gastro-intestinal tract, as well as for the relief of functional disturbances such as nausea, pyrosis, belching, and flatulence.

*A coined word to describe the unique action of the Entozyme Tablet which releases pepsin *only* in the stomach, and pancreatin and bile salts *only* in the small intestine.

A. H. ROBINS CO., INC., RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878



Outer shell water- and acid-soluble; inner core enteric protected.



Formula: Each specially constructed tablet contains Pancreatin, U.S.P., 300 mg.; Pepsin, N.F., 250 mg.; Bile Salts, 150 mg.

Dosage: One or two tablets after each meal, or as directed by physician, without crushing or chewing.

Supplied: Bottles of 25 and 100.

References: 1. Kommondel, N. et ol.: Bull. New York Med. Coll., Flower & Fifth Ave. Hosps., (in press). 2. McGovock, T. H. and Klotz, S. D.: Bull. Flower & Fifth Ave. Hosp., 9:61, 1946. 3. Weissberg, J., McGavock, T. H. ond Boyd, Linn J.: Am. Dig. Dis., 15:332, 1948.

Entozyme®

for comprehensive digestional aid in tablet form

Robins

More Red Blood from a Capsule....



HEMOSULES*
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Hematinic capsules for hypochromic anemias.

HEMOSULES* 'Warner' are high-potency, vitamin-rich capsules which also contain liver concentrate and highly absorbable ferrous sulfate.

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In Gastroenterology—*Hemosules* 'Warner'*
In Infectious Diseases—*Hemosules* 'Warner'*
In Anemias of Acute or Chronic Blood Loss—*Hemosules* 'Warner'*
In all Secondary Anemias—*Hemosules* 'Warner'*

Dosage Two HEMOSULES* Capsules t.i.d. in well defined hypochromic anemias. One to three HEMOSULES* Capsules for prophylaxis and/or maintenance.

Formula Each capsule contains:

Ferrous sulfate, Dried U.S.P. 162.0 mg.... (2.5 grs.)
Liver concentrate (1:20) 162.0 mg.... (2.5 grs.)
*Folic acid**...0.75 mg.*
Thiamine hydrochloride (vitamin B_1...1.0 mg.
Riboflavin (vitamin B_2)...1.0 mg.
Niacinamide...4.0 mg.
Pyridoxine hydrochloride (vitamin B_6)...0.5 mg.
*Calcium pantothenate**...0.5 mg.*
Ascorbic acid (vitamin C)...15.0 mg.

Package Information

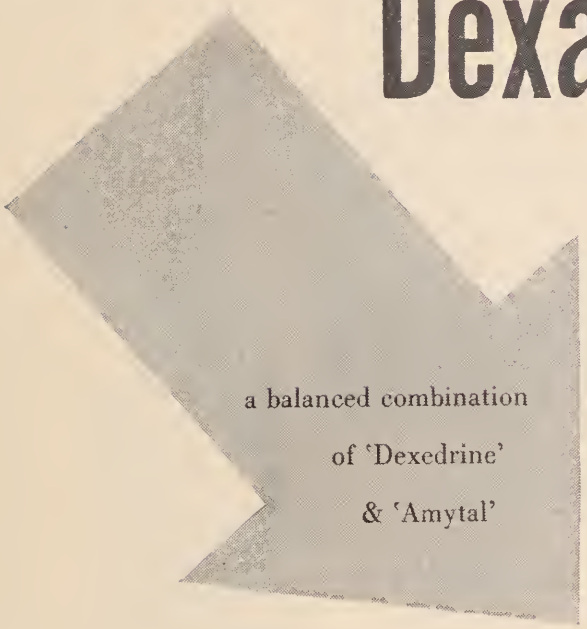
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**Trade Mark*
***The need for pyridoxine hydrochloride, calcium pantothenate and folic acid in human nutrition has not been established.*
†The minimum daily requirement for niacinamide has not been established.

WILLIAM R. WARNER & CO., INC.
New York St. Louis

S.K.F. announces

Dexamyl



the remarkable new preparation for relieving mental and emotional distress

In 'Dexamyl', the two components—'Dexedrine'* and 'Amytal'†—work together* to ameliorate mood; to relieve inner tension; and thus to control troublesome symptoms of mental and emotional distress:

The 'Dexedrine', because of its "smooth" and profound antidepressant action, restores mental alertness and optimism and dispels psychogenic fatigue.

The 'Amytal', because of its calming action, relieves nervous tension, anxiety and agitation.

Widely useful in everyday practice, 'Dexamyl' tablets are available on prescription only in bottles of 50. Each tablet contains 'Dexedrine' Sulfate (dextro-amphetamine sulfate, S.K.F.) 5 mg. and 'Amytal' (Amobarbital, Lilly) ½ grain (32 mg.).

*Trademark, S.K.F. †Trademark. Lilly

Smith, Kline & French Laboratories, Philadelphia



real

PALATABILITY

Orange flavor tastes delicious straight on the tongue or mixed in food. Non-allergenic, non-alcoholic Vitamin A ester used—no fishy taste or odor. No alcohol.

real

POTENCY *and* STABILITY



Each cc. of Ol-Vitum Drops contains:

Vitamin A ester	10,000 USP Units
Vitamin D	2,000 USP Units
Natural mixed tocopherols*	3 mg.
Thiamine hydrochloride	3 mg.
Riboflavin	0.8 mg.
Niacinamide	15 mg.
Pyridoxine hydrochloride	1.6 mg.
Ascorbic acid	100 mg.

No refrigeration necessary. No expiration dating required.

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EFFECTIVENESS



Infants receiving Vitamins A, C and D plus the B complex showed weight increases 20% to 50% greater than those receiving Vitamins A, D and C alone.[1]

In Bottles of 15 and 30 cc. with especially calibrated dropper. Dosage: ¼ to 1 cc. according to age.

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DROPS

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I.V.C.®

OL-VITUM® CAPSULES are also available

International Vitamin Division **IVES-CAMERON COMPANY, INC.,** New York 16, N. Y.

1. Kasdon, S. C., and Cornell, E. L.: Am. J. Obstet. & Gynec. 56:853 (Nov.) 1948.

*Equivalent (by biological assay) to 1.5 mg. d, Alpha Tocopherol



SPOIL THE APPETITE . . .

CONTROL OF APPETITE is frequently beyond the power of human will, a fact that explains most cases of obesity. Fortunately, appetite can be checked by administration of certain sympathomimetic drugs, such as *Propadrine*® phenylpropanolamine HCl, a development of Sharp & Dohme research notably free of the unpleasant side effects associated with ephedrine. ALTEPOSE tablets, a new formula for control of obesity, provide PROPADRINE HCl, 50 mg. (¾ gr.), to reduce the desire to eat; *thyroid*, 40 mg. (⅔ gr.), to increase metabolism; and DELVINAL® vinbarbital, 25 mg. (⅜ gr.), for mild sedation. ALTEPOSE tablets spare the obese patient the pangs of hunger, making low-calorie diets more acceptable, speed metabolism of excess fat and carbohydrate, and tend to suppress nervous tension and anxiety. The proper dose must be determined for each individual. ALTEPOSE tablets are supplied in bottles of 100 and 1,000. Sharp & Dohme, Philadelphia 1, Pa.

spare the patient

SHARP & DOHME

Altepose® TABLETS

for treatment of obesity



Tension, depression, insomnia, loss of confidence, fatigability, hot flashes, sweating, loss of libido and of potency—are all outstanding symptoms of male climacteric. A considerable number of men past middle-life suffer from symptoms attributable to a lessening or cessation of testicular function. The syndrome is most striking in young adult males who have undergone surgical castration or have had severe testicular trauma or infection such as post-mumps orchitis with atrophy, but is equally real in functional testicular failure from other causes at any age.

Testosterone Armour

is outstanding in relieving symptoms in such cases, provided, of course, that psychogenic or other endocrine causes are ruled out. It is available in these three forms:

Testosterone Propionate Armour

. . . (for injection) 25 milligrams per c.c.—in packages of 6-1 c.c. ampules, 50-1 c.c. ampules, 1-10 c.c. vial.

Methyl Testosterone Armour

. . . (oral) 25 milligrams per tablet—in boxes of 30 and 100 tablets.

Testosterone Pellets Armour

. . . (for subcutaneous implantation) 75 milligrams per pellet—in boxes of 3.

Have confidence in the preparation you prescribe—specify ARMOUR.

ARMOUR *Laboratories*

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For Greater Convenience of Administration

NEW

500-mg. Tablets

Oranixon

'Organon'

(Mephenesin)

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION



To simplify the administration of Oranixon to your patients suffering from hemiplegia, Parkinsonism, low back pain, or other neuromuscular disturbances, we have made available for your prescriptions a new 500-mg. tablet of this first Council-accepted brand of mephenesin. Your patients now need to take fewer doses—and only half the number of tablets—per day. Try this double-strength Oranixon tablet for some of your patients whose outlook appears hopeless—patients whose mentality and motor functions are "imprisoned" by their reflexes. You can usually relax spasm and rigidity within a few days by prescribing just 2 of the new 500-mg. Oranixon tablets 3 to 5 times a day. You'll find that Oranixon has the usual action of quieting overactive reflex motor centers without interfering with voluntary actions or normal reflexes. Oranixon is also available in 250-mg. tablets and in an elixir containing 400 mg. of mephenesin per teaspoonful.

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There is no better product..

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meets or exceeds every requirement of the Advisory Committee on Contraceptives of the American Medical Association. It is never advertised to the laity and is suggested for use only under the guidance of the physician.

The crystal clarity, agreeable odor, and elegant appearance of "RAMSES"* Vaginal Jelly† make it esthetically acceptable even to the most fastidious patients. As it is nonirritating, nonstaining, and nontoxic, no untoward effects follow its use.

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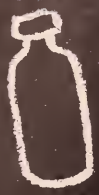
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White's Cod Liver Oil Concentrate LIQUID • TABLETS



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FEOSOL ELIXIR IS A PRODUCT OF SMITH, KLINE & FRENCH LABORATORIES PHILADELPHIA 1, PA.



no tripping on the psychic hurdle

Apprehension and anxiety
accompanied by tenseness
are usually the first
and often the last obstacles
in the path of successful therapy.
Sedation with 'Amytal'
(Amobarbital, Lilly)
in proper dosage is gently quieting
and does not induce
the "drugged" depression of spirits
so frequently observed
after the repeated use
of longer-acting barbiturates.
Unlike the latter,
which depend on kidney function
for elimination,
'Amytal' is destroyed in the body
and may be used more satisfactorily
in cases of renal damage.

Lilly



Detailed information and literature on 'AMYTAL' PRODUCTS are supplied through your M.S.R.*

*M.S.R.—Lilly Medical SERVICE Representative



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how sugar builds confidence

Flashing in the Cuban sun, machetes chop the moist green stems of sugar cane in a race against the coming of the tropical rains.

Sugar, used since antiquity in medicine, is now utilized at the rate of over sixty million pounds each year in the pharmaceutical industry.

Lilly standards, even for sugar, make demands beyond official requirements and specify such details as size of granule, degree of hardness and whiteness on drying, and the acceptable type of shipping container. Such exacting control of all ingredients is the reason that Lilly products are uniform from lot to lot, from original prescription to refill. The patient's continued confidence is thereby steadfastly maintained in the drug, in the pharmacist, and in the prescriber.

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Vol. 97, No. 4 April, 1950

NATION-WIDE HOSPITAL INSPECTION PROGRAM

The Effingham Hospital fire made Illinois physicians conscious of this type of catastrophe and we were pleased when we read that a nation-wide hospital inspection program was now in progress. It is being conducted by the capital stock insurance companies in cooperation with the American Hospital Association. To date more than 1,359 hospitals throughout the country have been inspected for fire and casualty hazards. Two or more inspectors visit each institution and make practical recommendations for improvement of the hospital safety wherever it is found. It is believed that nearly nine thousand hospitals will be inspected before the program is completed. More than 1700 engineers and field men from capital stock fire insurance and casualty insurance companies are engaged in the project. The program is under the direction of the National Board of Fire Underwriters. According to Col. Perrin C. Cothran, it is hoped that "the most lasting results" of the tour will be improvements in the training of hospital personnel and increased consciousness of fire dangers on the part of all who operate hospitals. Col. Cothran pointed out the importance of the plan was demonstrated only a few weeks ago when fire destroyed part of the Sauk County Hospital near Reedsburg, Wisconsin. The employees had been trained previously and while three of them fought the fire with inside hose lines, the others removed one hundred mental patients from the building. Help was summoned quickly from nearby fire departments. Fortunately, the building was saved and not a patient lost his life or was injured. In addition, mattresses, bedding, clothing and store room supplies had been removed. Had the building been destroyed, these supplies would have been available for the patients in other quarters. The hospital superintendent deserves credit for instigating fire drill and training program. Preventing another disastrous hospital fire deserves attention of all hospital personnel throughout the nation.

HEALTH TALK TV GOES TO OHIO — OVER WBNS-TV

Health Talk, in its televised form, will feature the annual Institute for Education by Radio, sponsored by the Ohio State University in Columbus, May 3-6. This year, for the first time, the Ohio State Medical Association is responsible for the health workshop incident to the Institute. In the effort to incorporate television as a formal part of the health workshop, the Association, through Dr. Jonathan Forman, invited the Educational Committee to present one of its telecasts, which have been a weekly feature over WGN-TV for fourteen months.

"Guardians of Your Sleep", telling the dramatic story of anesthesia, was selected by the Committee, with the approval of the Council of the Illinois State Medical Society for the presentation at the Institute. Of this telecast, Larry Wolters said in the Chicago Tribune: "For sheer drama this telecast far outstripped any video whodunit."

With the cooperation of WBNS-TV, the Columbus Dispatch station, of which Edward Bronson is program director, the telecast will be presented Saturday evening, May 6, as a feature of the Institute for Education by Radio in Columbus.

Health Talk, televised as a public information service in cooperation with WGN-TV, has enjoyed the cooperation of many allied professions. When "Guardians of Your Sleep" was first presented, August 10, 1949, Abbott Laboratories and Ohio Chemical Company participated by making available equipment to lend authenticity to the studio telecast.

They are again cooperating in the Ohio project. Through its Columbus dealers, The Columbus Hospital Supply Company and the Wendt-Bristol Company, the Ohio Chemical Company is providing equipment, and Abbott Laboratories is making possible the transportation of the Chicago "Cast" of the telecast.

With physicians contributing their time and effort, supply houses and other agencies assisting with equipment and devices, and WGN-TV participation in making time available, Illinois proves that in providing health education, allied professions walk together.

DEVELOPMENT OF PLANS FOR CARE OF POLIO CASES

On February 15, the Illinois State Polio Planning Committee held its first meeting in Springfield. This Committee was called together by Dr. Roland R. Cross, at the request of Governor Stevenson, in order to coordinate the activities of the several agencies and professional groups directly concerned in the handling of acute and convalescent cases of poliomyelitis. The membership of the Committee, in addition to Dr. Cross, is as follows:

Herbert M. Kobes, M.D., Division of Services for Crippled Children, University of Illinois
Harold M. Camp, M.D., Illinois State Medical Society
Ruth Kirk, R.N., Illinois State Nurses Association
Leo Lyons, Illinois Hospital Association
Andy Glosecki, National Foundation for Infantile Paralysis
Rodney Brandon, Sister Kenny Foundation
Ann Prochazka, American Physical Therapy Association
A. Eugene Miller, American Red Cross
Leonard M. Schuman, M.D., Divison of Communicable Diseases, Illinois Department of Public Health

The committee discussed the need for better planning in each of these areas of health service:

1. Hospital facilities
 a. for diagnosis
 b. for care during acute stage
 c. for care during convalescent stage
2. Recruitment of doctors, nurses, physiotherapists
3. Authorization and financing of care
4. Provision of consultant services
5. Education and publicity.

The Committee seemed to look with favor on the idea of establishing primary hospital centers for the diagnosis of polio and to use the better equipped and staffed secondary centers currently approved by the Division of Services for Crippled Children as places for referral of the more serious cases. The plan envisions that the primary or field centers for differential diagnosis would be fairly evenly distributed throughout the State at intervals of fifty or less miles between them in the more sparsely settled rural areas. This proposed arrangement assumes that polio cases will be admitted to the local hospital and that the necessary diagnostic equipment can be made available. To make the best use of this kind of diagnostic and referral system, it would be necessary that each hospital medical staff or county medical society delegate to one or more physicians the responsibility of consultation on all polio or suspected polio cases. The purpose of consultation would be to assist the family physician in the diagnosis of polio (which, even in an epidemic, is not always an easy diagnosis to reach) and to provide for greater uniformity in morbidity classification. The resources of the agencies represented on the Planning Committee would be available to conduct a one-day seminar on diagnosis of polio for these physician-delegates

or consultants from the local areas.

For hospital administrators and nurses, similar short institutes may be arranged.

The intent of this kind of systematized diagnosis, consultation and selective referral to the large hospitals with expert facilities and staff is to avoid needless long-distance transportation of cases which may not be polio or cases which may not require more care than the judicious observation which can be obtained through the local facilities.

These ideas and others concerned with the evolution of a more efficient pattern of patient care for poliomyelitis will in the first and last analysis depend on how the proposed plan meets the local needs and to what extent everyone locally is willing to participate in accordance with the broad principles of the scheme. Heretofore, planning in advance has been sketchy at best and often at the local area very little indeed is in readiness. Inasmuch as it is impossible to predict where polio might next strike, each community should, prior to July, have taken all practicable steps in preparedness.

These steps, the Committee feels, do not necessarily involve great expense or inconvenience; they merely represent the establishment of a mechanism to handle the problems of diagnosis and treatment prior to the time when an epidemic may suddenly strike. Planning during an emergency when all hands are absorbed in the details of patient care is seldom as clear and effective as planning in advance. Adjustments at the local, state and national levels as indicated could easily be made during the course of an outbreak.

The Committee is soon to meet again and would welcome comments from the physicians and hospitals throughout the State. Physicians are urged to make known at this time their past experience with obstacles to ideal care of polio patients and to make suggestions on arrangements which may overcome such inconveniences in the future. Please direct correspondence to Roland R. Cross, M.D., Director of the Illinois Department of Public Health, Springfield.

Tuberculosis is preventable and eradicable. In the United States it causes one death every nine minutes. Illinois needs 3000 additional sanitarium beds.

REPORT ON THE CONGRESS OF INDUSTRIAL HEALTH

In accordance with the directive of the Council on February 5, 1950 I attended the Tenth Annual Congress on Industrial Health as the official delegate of the Illinois State Medical Society and herewith present my report.

The conference, held in New York City, Feb. 20-21, was sponsored by the Council on Industrial Health of the American Medical Association and the Medical Society of the State of New York. Throughout the eight scheduled meetings attendance was excellent. Total professional registration for the conference was 418; New York had 208 representatives; New Jersey 41, and Illinois 15.

Most of the discussion during the congress was directed toward a better understanding of the objectives of industrial health service and the methods of bringing these benefits to more workers. The various patterns of present industrial health plans were explained by representatives of industry, insurance companies and organized labor.

H. B. Crow, special representative of Weirton Steel Company (W. Va.) discussed the welfare provisions maintained for the 40,000 employees of the Weirton Steel Company. This comprehensive "package insurance plan" for workers and dependents provides full coverage (medical, surgical and hospital benefits, in addition to cash benefits during disability) under a union contract wherein the cost is proportioned between management and the worker; the worker's share to be less than $5.00 per month.

Dr. D. O. Wright, medical director of the American Cast Iron Pipe Company of Birmingham, Alabama, detailed a complete non-contributory medical, surgical, dental and drug service for workers and dependents of his company; the cost borne by the company. "Management feels this is not philanthropy, but good business and pays for itself in increased production and better employee relations", according to Dr. Wright.

Dr. Warren F. Draper, executive medical officer for the Welfare Fund of the United Mine Workers of America, discussed the all comprehensive provisions for medical care provided in the union contract with the coal miners. The names of participating physicians, hospitals,

pharmacists are posted in all places of employment for the guidance of the workers. A fee schedule for professional services is determined by the union and must be accepted by the participating doctors.

The development and trends of Blue Cross and Blue Shield plans which cover limited benefits for hospital and medical-surgical services were explained. It was stated by Dr. P. R. Hawley, chief executive officer of the Blue Cross, that, "Shortly 75 of the 84 Blue Cross plans and 46 of the 63 Blue Shield plans in the United States will have provisions for insurance on an individual basis as well as the group employee policy."

Insurance under Blue Cross and Blue Shield can be arranged with greater benefits for large groups of workers under a single master policy. This is now being considered by one of the large steel corporations.

The plan of the Tennessee State Medical Association was described, whereby private insurance companies, licensed by the State, issue policies approved by the State Medical Association. This insurance provides a fee schedule as full payment for hospital and medical or surgical services for low income individuals and family groups. According to Emerson L. Mitchell, representative of Provident Life and Accident Insurance Company of Chattanooga, "Income classifications provided full protection for approximately 70 per cent of the population of Tennessee.

A symposium on medical care in case of national and catastrophic disaster created considerable interest and discussion and concluded with a recommendation that each state create a civil defense board by legislative action.

Conferences on the Nurse in Industry, Geriatrics, Cardio-Vascular Disease, and Tuberculosis Among Workers were participated in with interest.

It was apparent at this conference that the American Medical Association is concerned with the type and scope of medical service rendered by industrial management beyond the requirements of the Workmen's Compensation Laws. It was well recognized that economic aid must be available to the mass of workers and their dependents to meet the cost of disablement and related medical expense, and that this should be done on a voluntary basis at the State level. No adequate program for social and medical benefits can function without the cooperation of the medical profession. According to a statement by Mary Donlon, chairman of the Workmen's Compensation Board of New York State, "If the medical profession will accept the new challenge to see that American workers are provided with adequate medical care, we can bury the ghost of socialized medicine."

The expanding interest in the health problems of the industrial worker as manifested by the success of these annual conferences under the direction of the American Medical Association is an indication of the importance of industrial medicine as a specilized field of study.

J. H. Chivers, M.D., Chairman
Committee on Industrial Health
Illinois State Medical Society

SPECIAL TRAIN TO SAN FRANCISCO

The Council of the Illinois State Medical Society has approved the running of a special train from Chicago to San Francisco and return to take physicians and members of their families to the annual meeting of the American Medical Association. The special train will leave Chicago Wednesday, June 21. The route to Denver will be on the Burlington Railroad, then to Salt Lake City over the Denver and Rio Grande, and the Western Pacific on to San Francisco. Stop overs at interesting scenic points on the way are being arranged.

Three tours have been arranged, the first is the complete tour from Chicago to San Francisco and return to Chicago, with stop overs at several points. The second is from Chicago to San Francisco only, and independent return. The third, for those travelling to San Francisco independently, but returning from that city with the tour.

The special train will arrive at the San Francisco Ferry early Saturday evening, June 24, to give everyone a chance to get their accommodations in the convention city, and be ready for the meeting. Among the points of interest for the return trip, are the route to Los Angeles using the Southern Pacific, and stop over at Los Angeles, where some interesting tours have been arranged.

The trip continues on the Santa Fe to Grand



Scenic Colorado

Canyon, with a full day to inspect this scenic spot, and meals at the El Tovar Hotel. The return to Chicago from Grand Canyon is on the Santa Fe Railroad.

Complete details may be received by writing W. M. Moloney, GAPD, Burlington Route, 105 West Adams Street, Chicago 3, Illinois, Room 711. A copy of the illustrated folder will be sent to all inquirers giving complete details and the overall cost of the trip.

The plan has been approved by the State Society Council, and the railroads jointly are preparing the schedules, and informative data, and will do everything possible to make the trip one never to be forgotten. Stop overs and special tours are included for Denver, Salt Lake City, and through the Feather River Canyon by daylight. The costs include trips in and around Los Angeles, and accommodations at the Ambassador Hotel. The stops at Grand Canyon has been carefully arranged to give a full day at this famous scenic place. The trip has been well planned, and it will appeal to those expecting to attend the A.M.A. meeting in San Francisco.

CANCER OF THE STOMACH

. . .Up to the precent time all efforts to control carcinoma of the stomach have met with limited success largely because there is no certain method of identifying persons who harbor early lesions. Unless some means of prophylaxis is found and until much better methods of case finding are developed, physicians can do no more than take the fullest advantage of knowledge which is now at hand. When a middle-aged or elderly patient develops a mild or vague digestive disturbance, or any weakness, anemia, unexplained weight loss or even a distaste for certain foods such as meat, prompt and thorough gastric studies should be carried out. Any patient with a demonstrable gastric lesion that cannot be proved benign should have prompt surgical exploration. By following these two simple rules, without the use of any novel technics, a good many of the 40,000 lives can be saved that are now being lost each year to carcinoma of the stomach. *Excerpt, Carcinoma of the Stomach, Charles E. Dunlap, M.D., department of pathology, School of Medicine, Tulane University, New Orleans, La., The Nebraska State Medical Journal, November,* 1949.

MEDICAL ECONOMICS

The Medical Economics Committee. Chauncey C. Maher, Chmn., Hubert L. Allen, Carroll Birch, Thomas C. Browning, Roland R. Cross, James Graham, George Halperin, Edwin S. Hamilton, Eugene A. Hamilton, Ford K. Hick, Edwin F. Hirsch, John Mart, Jay McDonald Milligan, Holland Williamson, John R. Wolff.



School Physical Examination

Article 27, Section 8, of the Illinois School Code states that all pupils of the first, fifth, and ninth years should have a physical examination by physicians and dentists licensed to practice in the State of Illinois. To complete this examination, the parents would be required to visit their family physician for the general physical examination, their family dentist for the routine dental check up, and if any abnormality exists of eye or ears, to the Eye, Ear, Nose and Throat Specialist. In order to accomplish this mission with the minimum expense to the family and with a greater degree of efficiency in performing the examination by the doctor, the County Medical Society in a downstate community has set up a system of examinations that have been operating successfully now for five years.

The system herein described has been well received by the physician and dentists, and all have been pleased to take part in the program. A fee of one dollar is charged each pupil, and the School Board of the tax supported schools pay an equal sum for each child examined. The School Board has the legal right to pay the total fee of $2.00 for each pupil if they so desire. The parochial schools are examined at the same Center if located nearby; however, the $2.00 fee has to be paid in full by the parents or the school since they are private institutions. This money is collected by the Chairman in charge of the school examinations and deposited in a local bank. At the end of the year, each physician and dentist who has taken part in the examination are paid on a pro rata basis depending on the number of hours spent. The average remuneration for this service is about $11.00 per hour.

During the summer months, the County Superintendent of Schools, the City Superintendent of Schools, and the Chairman of School Examinations for the County Medical Society meet and plan the program for the fall. Once the schedule has been established, it may be used year after year with only minor variations. The entire County is covered and examination Centers set up so that all the schools in the immediate vicinity are notified to have their pupils at the Center by 8:30 a.m. on such and such a date. In most instances, the school buses are needed for transportation to and from the Center.

The gymnasium or a large multi-purpose room offers an ideal location for the examinations. The principal of this school, where the examina-

tion is to be held, appoints some teacher to be in charge of the money; other teachers are appointed to act as secretaries to the doctors and assist in supervising the children while in line. The teachers also help materially by having their pupils weighed and measured the day before the examinations and the "disease history" filled out on the health card. The parents must name their family physician or the name of some physician if they do not have a family doctor. The cumulative records of the examination shall be kept by the school authorities.

The team of examiners should consist of a dentist, an eye, ear, nose and throat specialist, a general surgeon, an orthopedic surgeon and several general practitioners. Two or three graduate nurses are of invaluable aid and should be included in the team. Often graduate nurses are found in the local community or P.T.A. and should be called upon for assistance. Local physicians should be assigned to the team, where examinations are to be conducted in the areas in which they serve. The chairman of School Examinations should be present at all examinations.

The team should arrive at the designated Center by 8:30 a.m. The children should be undressed, with the exception of shorts, and ready to be examined promptly. Boys and girls are examined separately especially in the upper classes. The line forms, and each child carries his or her own card from one station to another; the secretaries marking on the card the doctor's specific findings for the portion of the examination he has conducted. The cards are collected at the last station and surveyed by the Chairman. Defects are noted, and a post card sent to the parents with the recommendation of the examiners.

Mantoux tests, Schick tests, vaccinations for smallpox, and immunization against tetanus and diphtheria are all performed in this community at the same low cost per pupil. The materials required are obtained from the state, therefore, of no expense to the Society. The needles and syringes are sterilized the night before in one of the local hospitals. Two members of the team and a nurse return two days after the examination to read the skin tests and vaccinate any positive reactor, also to give necessary immunizations. Physical defects noted or recommendations the doctors make, such as teeth, tonsils, hernia, faulty posture, flat feet, etc., are all referred to the family physician.

Further evidence of good public relations on the part of the M.D.'s can be the group examination of athletes for the schools. Nearly all physical education programs require a doctor's certificate before allowing these students to take part in any form of athletics. This examination should be held early in September before football season opens and again in late October for those participating in winter sports.

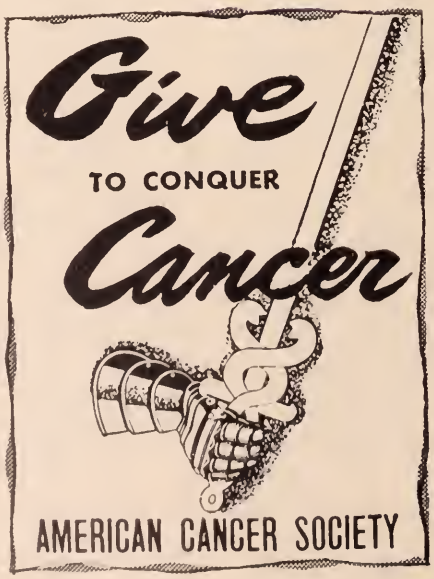
By the method so described, between 200-300 children may be examined in the forenoon. The physicians and dentists are rotated so that little hardship on anyone is experienced. The following suggestions are published by the school authorities. The Health Cards may be obtained from the Superintendent of Public Instruction Offices in Springfield, Illinois.

1. The Top Half of the "School Health Record" card must be filled out in complete form before the pupils arrive at the CENTER for the Physical Examination. On back of card, give date of examination and grade of pupil. Fill out with INK.
2. The teacher obtains information from parents regarding "Disease History (Yes or No)" to be put on Top Half of card before the day of examination. Give the year when the pupil had chickenpox, measles, etc. The parents MUST name their physician, or the name of some physician, even if they do not have a family physician.
3. The teacher or principal must bring a fee of $1.00 for each pupil from the parents. Health Center Chairman will appoint some teacher to be in charge of all money.
4. The "School Health Record" cards are to be taken to the examination Centers; and given to each individual student in line when he has been properly prepared in the dressing rooms for the examination.
5. Freshmen boys will not be examined at the same time as the Freshmen girls.
6. Teachers will help supervise children in line at time of the examination.
7. The "School Health Record" cards will be left at the Center until the day for readings of the skin tests; at that time the record card will be given back to the

teacher or principal who MUST keep them on file at the school, pursuant to the law, where parents may inspect them after the examination.

8. If at all possible, TEACHERS should bring the children to the CENTERS instead of PARENTS.
9. Schools having children for this examination WILL BE DISMISSED so that the teacher can render efficient service. But all pupils ENROLLED will be counted PRESENT for that day.
10. The teachers must have children at the Centers FAR ENOUGH AHEAD of the HOUR SPECIFIED for their pupils' examination so that they are prepared to receive the examination promptly on the TIME specified.
 Boys will be prepared separately from the girls.
11. In filling out the Top Half of the "School Health Record" card, be sure and write the pupil's name thus: John Smith and NOT Smith, John.
12. Resident Center pupils will start being examined at 8:30 a.m. A letter will be sent later stating time for all other schools.
13. The examination will be over by noon. YOU and YOUR PUPILS may take the afternoon off, counting all ENROLLED pupils PRESENT all day.
14. Be sure to get the required number of "School Health Record" cards EARLY.
15. Your Time Schedule will reach you in time for you to make definite arrangements for your pupils to arrive at their Examination Center at the specified time.
16. After the examination, we suggest that you place colored "tabs" upon each card which indicates defects which can be corrected. You can work out a plan of using a different colored "tab" for each respective defect. This will establish a challenge to remove the tabs as the defects are corrected.
17. HEALTH CARDS should be sent to the County Superintendent's Office at the time pupils are transferred to another school in the County. The Office of the County Superintendent will then forward the card to the new school which the pupil enters. If the pupil is transferred to a school in another County or State, please send the Health Cards with the pupil.
18. The Health Cards of the eighth grade graduates should be sent to the High School which they will attend. High School graduates should be given their Health Cards at the time of their graduation.

H. W.



PROGRAM

of the

ONE HUNDRED TENTH ANNUAL MEETING
ILLINOIS STATE MEDICAL SOCIETY

"THE ANDY HALL MEETING"

SPRINGFIELD, ILLINOIS

National Guard Armory
Abraham Lincoln Hotel

MAY 23, 24, 25, 1950



Dr. Andy Hall, Mt. Vernon

For the first time in the history of the Illinois State Medical Society, an annual meeting has been dedicated to one of its distinguished members, Dr. Andy Hall of Mt. Vernon. At the Interim Session of the American Medical Association held in Washington, D. C. last December, Doctor Hall was elected as the Outstanding General Practitioner in these United States. At this meeting in Springfield, Doctor Hall will receive the award as the outstanding general practitioner in Illinois, an honor given him by a special committee last fall, prior to his election to a similar honor at the national level.



ABRAHAM LINCOLN HOTEL

Headquarters for meetings of the House of Delegates, the Annual Dinner and other social functions



THE NATIONAL GUARD ARMORY
Headquarters for all scientific sessions of the General Assembly, all scientific exhibits, scientific movies and technical exhibits, registration desk and information services, press headquarters and the Secretary's office.

PROGRAM FOR THE ANDY HALL ANNUAL MEETING

The official program in the customary booklet form will be distributed to all registrants at the annual meeting. As you know, there is no charge for registration at a meeting of the Illinois State Medical Society.

ORATORS IN MEDICINE AND SURGERY

The Oration in Medicine will be given at 11:20 a.m. on Tuesday morning, May 23, before the General Assembly in the National Guard Armory. Dr. Carl Vernon Moore, Professor of Medicine at Washington University School of Medicine in St. Louis has chosen for his subject "Recent Advances in Hematology".

On Thursday afternoon, May 25, before the General Assembly in the National Guard Armory Dr. Raymond W. McNealy, Associate Professor of Surgery at Northwestern University Medical School, Chicago, will deliver the Oration in Surgery. His subject will be "Half Way Through". For the first time an Illinois physician has been extended the invitation to deliver the Oration in Surgery.

Both Orators will be introduced by the President of the Society, Dr. Walter Stevenson of Quincy, who will deliver his President's Address before the General Assembly on Tuesday morning just prior to the presentation of the Oration in Medicine.

OUT OF STATE SPEAKERS

Each of the sections has been given the privilege of inviting an out of state guest speaker to appear before the General Assembly. In some cases these men will present two papers, one before the General Assembly and the second before the section meeting on Wednesday.

C. O. McCormick, Clinical Professor of Obstetrics and Gynecology, Indiana University Medical Center, Indianapolis — "OBSTETRICAL HELPS" Tuesday afternoon — Armory — General Assembly — 3:40 o'clock.

Chester M. Kurtz, Associate Professor of Medicine, University of Wisconsin Medical School, Madison — "HYPERTENSION: Evalu-

ation of Present Methods of Treatment". Wednesday morning — Armory — General Assembly — 11:10 o'clock.

Max N. Strumia, Director, Clinical Laboratory, Bryn Mawr Hospital, Assistant Professor Graduate School, Pennsylvania University, Associate Professor in Pathology, Pennsylvania University, Bryn Mawr, Pennsylvania — "RECENT ADVANCES IN THE MANAGEMENT OF ANEMIAS" — Wednesday afternoon, Armory — General Assembly — 1:50 o'clock.

Wendell Johnson, Professor of Speech, State University of Iowa, Iowa City, "STUTTERING AND STAMMERING IN CHILDREN" — Wednesday afternoon — Armory — General Assembly — 2:30 o'clock.

Robert L. Bennett, Jr., Associate Director, Warm Springs Sanitarium, Warm Springs, Georgia — "TREATMENT OF POLIOMYELITIS" — Symposium on Poliomyelitis — Wednesday afternoon, — Armory — General Assembly. (Symposium scheduled from 3:20 to adjournment)

Edward B. Neuhauser, Instructor in Roentgenology, Harvard Medical School, Roentgenologist to Children's Hospital, Boston, — "DIAGNOSIS OF CARDIOVASCULAR ANOMALIES BY ROUTINE ROENTGEN METHODS" — Thursday morning, Armory — General Assembly — 9:40 o'clock.

Alfred T. Lieberman, Assistant Professor of Otology and Laryngology, Johns Hopkins University School of Medicine, Baltimore, Maryland — "TYPES AND TREATMENT OF DEAFNESS" — Thursday morning — Armory — General Assembly — 10:40 o'clock.

Robert M. Zollinger, Professor of Surgery, Ohio State University Medical School, Columbus, "THE INDICATIONS FOR SURGERY IN GALLBLADDER DISEASE" — Thursday morning, Armory — General Assembly — 11:30 o'clock.

THE SECTION OFFICERS

From the officers of the eight sections came the suggestions for the papers and the subjects and the speakers to appear before the General Assembly. The executive committee, with John L. Keeley as chairman, assembled the materials submitted by these men, and developed the programs which you will hear at the 1950 session.

Each section invited a guest speaker; each section furnished the names of three speakers. By organizing some of the subjects to be presented men were chosen in various fields. The symposium on poliomyelitis was developed and the Question and Answer Period provided by popular request.

The Executive Committee has enjoyed cooperation from the various Section officers, and because of the assistance given, has been able to develop an outstanding program for the general practitioner in attendance at The Andy Hall Annual Meeting.

Our Section Officers this year are as follows:

SECTION ON MEDICINE
Edward Bigg, Chicago — Chairman
R. F. Millet, Macomb — Secretary

SECTION ON SURGERY
John L. Keeley, Chicago — Chairman
Charles D. Branch, Peoria — Secretary

SECTION ON EYE, EAR, NOSE AND THROAT
Richard C. Gamble, Chicago — Chairman
William A. McNichols, Dixon, Secretary

SECTION ON PUBLIC HEALTH AND HYGIENE
John H. Hall, Jr., Chicago — Chairman
Dale E. Scholz, Mt. Carmel — Secretary

SECTION ON RADIOLOGY
Harold L. Shinall, Bloomington — Chairman
Theodore J. Wachowski, Wheaton — Secretary

SECTION ON PEDIATRICS
George L. Drennan, Jacksonville — Chairman
Anders J. Weigen, Chicago — Secretary

SECTION ON OBSTETRICS & GYNECOLOGY
John R. Wolff, Chicago — Chairman
Worling R. Young, Geneseo — Secretary

SECTION ON PATHOLOGY
Harry M. Steen, Springfield, Chairman
Coye C. Mason, Chicago — Secretary

SCIENTIFIC PROGRAMS

GENERAL ASSEMBLY

Tuesday Morning, May 23, 1950
National Guard Armory

Presiding: Richard C. Gamble
Assisting: Harry M. Steen

9:00-9:10 — Opening of the 1950 Annual Meeting
Walter Stevenson, President
Illinois State Medical Society
Quincy, Illinois

9:10-9:30 — **"Bacteriology of Eye Infections in the Midwest"**
Roland I. Pritikin and M. Louis Duchon
Rockford, Illinois

9:30-9:50 — **"Findings and Limitations in Gastrointestinal X-Ray Studies"**
Homer W. Vanlandingham
Rockford, Illinois

9:50-10:10 — **"The Management of Endometriosis"**
James P. Fitzgibbons, Instructor in Obstetrics and Gynecology, University of Illinois College of Medicine
Chicago, Illinois

10:10-10:30 — RECESS to view Scientific and Technical Exhibits

10:30-10:50 — **"Ambulatory Treatment of Retinal Vascular Diseases with Dicoumarol"**
Francis W. Parker, Jr.
Rockford, Illinois

10:50-11:20 — **PRESIDENT'S ADDRESS**
Walter Stevenson, President
Illinois State Medical Society
Quincy, Illinois

11:20-12:05 — ORATION IN MEDICINE — **"Recent Advances in Hematology"**
Carl Vernon Moore, Professor of Medicine
Washington University School of Medicine
St. Louis, Missouri

Tuesday Afternoon, May 23, 1950
Presiding: George L. Drennan
Assisting: Worling R. Young

1:30-1:50 — **"Results of Chest X-Ray Screening in Hospitals"**
John E. Madden, Radiologist, Decatur and Macon County Hospitals
Decatur, Illinois

1:50-2:10 — **"The Judicious Use of Parenteral Therapy"**
S. O. Levinson, Chief, Department of Blood and Serum Therapy, Michael Reese Hospital
Chicago, Illinois

2:10-2:40 — **"Indications and Dangers of Anticoagulant Therapy"**
In Medicine (15 minutes) Norman B. Roberg, Clinical Assistant Professor of Medicine, University of Illinois College of Medicine
Chicago, Illinois
In Surgery (15 minutes) O. C. Julian, Clinical Assistant Professor of Surgery, University of Illinois College of Medicine
Chicago, Illinois

2:40-3:20 — RECESS to view Scientific and Technical Exhibits

3:20-3:40 — **"Urological Conditions in Infants and Children"**
Knowlton E. Barber, Assistant Professor of Urology Northwestern University Medical School
Chicago, Illinois

3:40-4:10 — **"Obstetrical Helps"**
C. O. McCormick, Clinical Professor of Obstetrics and Gynecology, Indiana University Medical Center,
Indianapolis, Indiana

Wednesday Morning, May 24, 1950
Presiding: Theodore J. Wachowski
Assisting: John R. Wolff

9:00-9:20 — **"Anesthesia in Obstetrics"**
Carl Greenstein
Champaign, Illinois

9:20-9:40 — **"X-Ray Findings in Adult Urological Conditions"**
Paul E. Dirkse, Radiologist, St. Francis Hospital
Peoria, Illinois

9:40-10:00 — **"The Newer Anti-Biotics"**
Clayton G. Loosli, Professor of Preventive Medicine,
University of Chicago School of Medicine
Chicago, Illinois

10:00-10:30 — RECESS to view Scientific and Technical Exhibits

10:30-10:50 — **"The Need for a Medical Program in Small Industry"**
Joseph H. Chivers, Chairman, Committee on Industrial Health, Illinois State Medical Society
Chicago, Illinois

10:50-11:10 — **"The Etiology and Management of Abdominal Distension"**
Walter G. Maddock, Professor of Surgery
Northwestern University Medical School
Chicago, Illinois

11:10-11:40 — **"Hypertension: Evaluation of Present Methods of Treatment"**
Chester M. Kurtz, Associate Professor of Mediciine,
University of Wisconsin Medical School
Madison, Wisconsin

Wednesday Afternoon, May 24, 1950
Presiding: Edward Bigg
Assisting: John H. Hall, Jr.

1:30-1:50 — **"The Relationship of Health Department Programs to the Practicing Physician"**
Roland R. Cross, Director, Department of Public Health, State of Illinois
Springfield, Illinois

1:50-2:20 — **"Recent Advances in the Management of Anemias"**
Max N. Strumia, Director, Clinical Laboratory,
Bryn Mawr Hospital, Assistant Professor, Graduate School, Pennsylvania University, Associate Professor in Pathology, Pennslyvania University
Bryn Mawr, Pennsylvania

2:20-2:50 — **Shuttering and Stammering in Children"**
Wendell Johnson, Professor of Speech, State University of Iowa
Iowa City, Iowa

2:50-3:20 — RECESS to view Scientific and Technical Exhibits

3:20-4:20 — **"Poliomyelitis Symposium"**
Public Health Aspects
E. A. Piszczek, Controller, The Suburban Cook County Tuberculosis Sanitarium
Forest Park, Illinois
Early Clinical Manifestations
George L. Drennan
Jacksonville, Illinois
Clinical Pathological Correlation
Max Appel, Pathologist at Burnham City Hospital
Champaign, Illinois
Treatment of Poliomyelitis
Robert L. Bennett, Jr., Associate Director, Warm Springs Sanitarium
Warm Springs, Georgia
QUESTION AND ANSWER PERIOD

Thursday Morning, May 25, 1950
Presiding: John L. Keeley
Assisting: Coye C. Mason

9:00-9:20 — **"Practical Laboratory Evaluation of Renal Function"**
James P. Simonds, Professor of Pathology — Emeritus —
Northwestern University Medical School
Chicago, Illinois

9:20-9:40 — **"Trends in Management of Acute Appendicitis in Children"**
Paul F. Fox, Clinical Associate in Surgery,
Stritch School of Medicine, Loyola University
Chicago, Illinois

9:40-10:10 — **"Diagnosis of Cardiovascular Anomalies by Routine Roentgen Methods"**
Edward B. Neuhauser, Instructor in Roentgenology,
Harvard Medical School; Roetgenologist to Children's Hospital
Boston, Massachusetts

10:10-10:40 — RECESS to view Scientific and Technical Exhibits

10:40-11:10 — **"Types and Treatment of Deafness"**
Alfred T. Lieberman, Assistant Professor of Otology and Laryngology, Johns Hopkins University School of Medicine
Baltimore, Maryland

11:10-11:30 — **"The Use of ACTH in Arthritis"**
David E. Markson, Assistant Professor of Medicine,
Director of the Arthritis Clinic, Northwestern University Medical School
Chicago, Illinois

11:30-12:00 — **"The Indications for Surgery in Gall Bladder Disease"**
Robert M. Zollinger, Professor of Surgery
Ohio State University Medical School
Columbus, Ohio

Thursday Afternoon, May 25, 1950
Presiding: Charles D. Branch
Assisting: Harold L. Shinall

1:30-1:50 — **"Roentgenology in Obstetrical Problems"**
Francis Blonek
Rock Island, Illinois

1:50-2:10 — **"Trends in the Management of Tuberculosis"**
Otto L. Bettag, Tuberculosis Control Officer City of Chicago, and Medical Director of the Municipal Tuberculosis Sanitarium
Chicago, Illinois

2:10-2:55 — ORATION IN SURGERY — **"Half Way Through"**
Raymond W. McNealy, Associate Professor of Surgery
Northwestern University Medical School
Chicago, Illinois

2:55-3:25 — RECESS to view Scientific and Technical Exhibits

3:25-3:45 — **"Errors in Treatment of Common Fractures"**
Joseph T. Coyle, Clinical Instructor in Bone and Joint Surgery, Stritch School of Medicine,
Loyola University
Chicago, Illinois

3:45-4:05 — **"Surgery of the Nose in Children"**
M. H. Cottle, Professor and Head of Department of Otolaryngology, Chicago Medical School
Chicago, Illinois

MEETINGS OF THE VARIOUS SECTIONS

SECTION ON EYE, EAR, NOSE AND THROAT

Wednesday Morning, May 24, 1950

Chairman: Richard C. Gamble, Chicago
Secretary: William A. McNichols, Dixon

9:00 — **"Significance of Visual Fields taken with Minute Light Stimuli in Dark Adapted Eyes in Early Glaucoma"**
Stefan Van Wien, Chicago
Instructor in the Eye Department of Northwestern
University Medical School

9:20 — **"Diagnosis and Prognosis of Malignancy of Nasopharynx"**
Joseph G. Schoolman, Chicago
Assistant Professor of Otolaryngology, University of Illinois College of Medicine

9:40 — **"A Short Study of Iritis: Significance of Early Diagnosis and Treatment"**
Joseph Shanks, Chicago

10:00 — **"Acute Laryngo-Tracheo-Bronchitis and its Management"**
Hans VonLeden, Chicago
Clinical Associate, Department of Otolaryngology,
Stritch School of Medicine, Loyola University

10:20 — **"The Function of the Canal of Schemm"**
Michael Goldenburg, Chicago

10:40 — **"The Problem of Deafness in Children"**
Alfred T. Lieberman, Baltimore, Maryland
Assistant Professor of Otology and Laryngology,
Johns Hopkins University School of Medicine

11:10 — **"Personal Experiences with Cataract Surgery"**
Max Hirschfelder, Centralia

11:30 — **"Aerosinusitis and Otitis Media"**
John C. Vermeren, Chicago
Assistant Clinical Professor of Otolaryngology,
Stritch School of Medicine, Loyola University

SECTION ON PEDIATRICS

Wednesday Morning, May 24, 1950

Chairman: George L. Drennan, Jacksonville
Secretary: Anders J. Weigen, Chicago

"Diabetes Mellitus in Infants and Children"
Alvah L. Newcomb, Chicago
Associate in Pediatrics, Northwestern University
Medical School

"Viral Hepatitis in Infants and Children"
Alfred S. Traisman, Chicago
Associate in Pediatrics, Northwestern University Medical School

"Aids and Pitfalls in Radiology in Children"
William E. Anspach, Chicago
Associate in Radiology, Northwestern University Medical School

"Diagnosis and Treatment of Unusual Conditions in Infants an Children"
John L. Reichert, Chicago
Associate in Pediatrics, Northwestern University Medical School

A luncheon will follow the section meeting and arrangements are being made for approximately 35 to attend.

If you desire to have luncheon with this group, get in touch with
Dr. Anders J. Weigen, Secretary
Section on Pediatrics
1475 Farragut Avenue
Chicago, Illinois
He will be glad to take reservations for you and make arrangements with the hotel to accommodate all physicians who plan to be in attendance.

SECTION ON PATHOLOGY

Wednesday Morning, May 24, 1950

Chairman: Harry M. Steen, Springfield
Secretary: Coye C. Mason, Chicago

9:00-9:20 — **"Flocculation Tests in the Differential Diagnosis of Jaundice"**
Hans Popper and Frederick Steigmann, Chicago
Discussion: 9:20-9:30

9:30-10:00 — **"The Use of the Serum Protein Coagulation Test in the Diagnosis of Tumors"**
A. Vass, Springfield (9:30-9:45)
Jacob N. Shanberge and Otto Saphir, Chicago (9:45-10:00)
Discussion: 10:00-10:10

10:10-10:30 — **"Pathologic Findings in Poliomyelitis"**
Paul B. Szanto, Chicago
Discussion: 10:30-10:35

INTERMISSION

10:45-11:10 — **"Pathologic Anatomy of Trauma"**
Jerry Kearns, Chicago
Discussion: 11:10-11:15

11:15-12:00 — GUEST SPEAKER:
Max M. Strumia, Bryn Mawr, Pennsylvania
Director, Clinical Laboratory, Bryn Mawr Hospital
Assistant Professor Graduate School, Pensylvania University
Associate Professor in Pathology, Pennsylvania University

SECTION ON PUBLIC HEALTH AND HYGIENE

Wednesday Morning, May 24, 1950

Chairman: John H. Hall, Jr., Chicago
Secretary: Dale E. Scholz, Mt. Carmel

The Section on Public Health and Hygiene have planned a panel discussion conducted as an open forum with all physicians invited to attend.

Their subject will be:
"The Medical Society's Responsibility in Pre-..ventive Medicine and Public Health"
Edwin S. Hamilton, Kankakee, Moderator
Josiah J. Moore, Chicago
Tom Kirkwood, Lawrenceville
W. W. Bauer, Chicago (Director of the Bureau of Health Education of the A.M.A.)

SECTION ON RADIOLOGY

Wednesday Afternoon, May 24, 1950

Chairman: Harold L. Shinall, Bloomington
Secretary: Theodore J. Wachowski, Wheaton

The Section on Radiology plans to have a Film Reading Session the latter part of the afternoon opening at 3:30 p.m., at which the out of state guest speaker, Dr. Edward B. Neuhauser of Boston, will act as moderator.

Doctor Neuhauser is Instructor in Roentgenology at Harvard Medical School and Roentgenologist to Children's Hospital at Boston.

SPECIAL SOCIETY FUNCTIONS

HOUSE OF DELEGATES

Abraham Lincoln Hotel Headquarters

FIRST MEETING:

TUESDAY AFTERNOON, MAY 23, 1950

3:00 p.m. The first meeting of the House of Delegates will be called to order by the President, Walter Stevenson, Quincy, for Reports of Officers, Councilors, Committees, Appointment of Reference Committees, Introduction of Resolutions and for the transaction of other business which may come before the House.

SECOND MEETING:

THURSDAY MORNING, MAY 25, 1950

9:00 a.m. The second meeting of the House of Delegates will be called to order by the President, Walter Stevenson, Quincy, for the Election of Officers, Councilors, Committees, Delegates and Alternates to the American Medical Association, Reports of Reference Committees and action on same, action on Resolutions, and for the transaction of other business to come before the House.

At the close of this meeting Harry M. Hedge of Chicago will be installed as the new President of the Illinois State Medical Society. He will receive the official gavel from the retiring President, Walter Stevenson.

CERTIFICATION OF DELEGATES

For the convenience of members of the House of Delegates, the Committee on Credentials will meet at a table in the lobby of the Abraham Lincoln Hotel to certify delegates prior to the opening of the House at 3:00 o'clock on Tuesday afternoon, May 23, 1950.

The members of the committee will be at the table from 10:00 a.m. until 12:00 noon on Tuesday, and if you will present your credentials between those hours it will expedite matters when the House holds its first session on that afternoon.

The Committee will also meet prior to the opening of the House from approximately 2:00 until 3:00 just outside the room in which the House will convene at the Abraham Lincoln Hotel.

With this additional service available for members of the House, it should be possible for each delegate to be certified before the House convenes.

We hope that every member will take advantage of this effort to streamline the meeting and to open the sessions on time.

SECRETARIES' CONFERENCE ILLINOIS STATE MEDICAL SOCIETY'S "GRASS ROOTS CONFERENCE"

Tuesday evening, May 23, 1950
Abraham Lincoln Hotel

Chairman: H. Kenneth Scatliff, ... Chicago
Vice-Chairman: F. Lee Stone, ... Chicago
Secretary: Max Hirschfelder, ... Centralia

The annual Secretaries' Conference dinner meeting will be held Tuesday evening, May 23 with the program aimed to aid and assist all county medical society officers with the problems they are confronting in their work today.

All members of the profession will be welcome at the dinner and tickets will be on sale in the lobby of the National Guard Armory.

The meeting will adjourn in time for those in attendance to be guests of the Society at the Fellowship Hour being planned by the members of the Sangamon County Medical Society for Tuesday night.

ANNUAL FELLOWSHIP HOUR

Tuesday Night, May 23, 1950

The hours from about 9:00 till somewhere around midnight Tuesday May 23, will see the return of the old fashioned "STAG". There will be nothing old fashioned about the entertainment planned for all men attending the Andy Hall Annual Meeting, according to Richard F. Herndon, Chairman of the local committee.

All men in attendance at the meeting and all technical exhibitors will be invited to the "Fellowship Hour" — while the women will be the guests of the Sangamon County Auxiliary.

For the first downstate meeting since 1942 — this evening of fun will be a "first" in entertainment.

If you're in Springfield — you're in!

THE ANNUAL DINNER

Wednesday Evening, May 24, 1950
Abraham Lincoln Hotel

On Wednesday evening, May 24, the annual dinner of the Illinois State Medical Society will be held to honor our retiring President, Walter Stevenson of Quincy, and this year, to honor our outstanding general practitioner, Andy Hall of Mt. Vernon.

The President's Certificate will be presented to Doctor Stevenson by the Chairman of the Council, Dr. Oscar Hawkinson. Doctor Stevenson, as President, will in turn, present the Outstanding General Practitioner Award to Dr. Andy Hall of Mt. Vernon.

Raymond Moley, editorial writer for NEWSWEEK, who was in England for five weeks covering the British elections, will be the speaker of the evening. While in England Mr. Moley had a long discussion with Bevan, who is Minister of Health. Moley has a keen interest in and has made quite a study of socialized medicine in Britain.

He will be the only speaker at the dinner, and his message should be an interesting one to all attending.

We will try to accommodate all desiring to attend. If you wish to make your reservations for this dinner, please send the form below to the Secretary's office and your request will be cared for.

FIFTY YEAR CLUB LUNCHEON

Thursday Noon, May 25, 1950

Since the founding of the Fifty Year Club in 1937 Dr. Andy Hall of Mt. Vernon has been its Chairman. This year honors have come to him from all over these United States. He was chosen as this nation's outstanding general practitioner at the Interim Session of the American Medical Association held in Washington, D. C. in December, 1949.

As Chairman of his Fifty Year Club, he will

RESERVATION BLANK

Dr. Harold M. Camp, Secretary
Illinois State Medical Society
Monmouth, Illinois

Please reserve for me_____places at the Annual Dinner of the Illinois State Medical Society to be held Wednesday evening, May 24, 1950, at the Abraham Lincoln Hotel in Springfield. I will call for the tickets at headquarters in Springfield.

Signed: _____
Address: _____

preside at the complimentary luncheon given by the Illinois State Medical Society for all members of his group in attendance at "The Andy Hall Annual Meeting".

All members of the Fifty Year Club are invited to attend, and will be sent notices of the luncheon by Doctor Hall. This will be a popular meeting and attendance will be limited to men and women who have been in the practice of medicine for fifty years.

If you are a member of THE FIFTY YEAR CLUB, and you will be present at The Andy Hall Annual Meeting, fill in the form below and mail it to the Secretary's office so that a reservation can be made for you.

RESERVATION BLANK

Dr. Harold M. Camp, Secretary
Illinois State Medical Society
Monmouth, Illinois

I am a member of The Fifty Year Club, and I would like to have a reservation made for me to attend the complimentary luncheon on Thursday noon, May 25, at The Andy Hall Annual Meeting in Springfield.

Signed: _____

Address: _____

MEETINGS OF SPECIAL GROUPS

ILLINOIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY

Meeting Monday, May 22, 1950
Springfield, Illinois

The Illinois Obstetrical and Gynecological Society will hold its meeting the day before our annual session opens in Springfield, Monday, May 22. The group plans to have a luncheon in the Palm Room of the Abraham Lincoln Hotel at noon, with the scientific program in Private Meeting Room K on the same floor.

The scientific program will open at 9:00 a.m. and will close at 5:00 p.m. Plans are being made for an approximate attendance of 60. Dr. Howard L. Penning of Springfield is making the local arrangements.

●

ILLINOIS CHAPTER AMERICAN COLLEGE OF CHEST PHYSICIANS

Tuesday Evening, May 23, 1950

President: Darrell H. Trumpe, Springfield
Vice-President: Edwin R. Levine, Chicago
Secretary-Treasurer: Charles K. Petter, Waukegan

The Illinois Chapter of the American College of Chest Physicians has held outstanding meetings during the annual meeting of the Illinois State Medical Society. They have brought men from all over the middle west to speak before their group and to present this specialty for the general practitioner in attendance at our annual session.

This year the group plans to meet on Tuesday evening. Their program due to lack of time, will not be as long as it has in the past, but we feel sure that physicians attending this session will find the usual excellent presentations by authorities in this field of medicine.

●

DIPLOMATES OF THE NATIONAL BOARD OF MEDICAL EXAMINERS

Tuesday Noon, May 23, 1950

There will be a luncheon of the Diplomates of the National Board of Medical Examiners on Tuesday noon, May 23, 1950 during the annual meeting of the Illinois State Medical Society in Springfield. The meeting will be devoted to an informal discussion of the Problems of the National Board in general, and in particular, in the state of Illinois.

Arrangements for the luncheon and the program are being made by Dr. Willard O. Thompson, and a reservation may be secured by mailing the form.

Dr. Willard O. Thompson
700 North Michigan Avenue
Chicago, Illinois

Please reserve _____ places for me at the luncheon of the Diplomates of the National Board of Medical Examiners to be held on Tuesday noon, May 23, during the annual meeting of the Illinois State Medical Society.

Signed: _____

Address: _____

PHI CHI ALUMNI LUNCHEON

Tuesday Noon, May 23, 1950

Plans for the Phi Chi Alumni Luncheon are being made this year by Dr. Jacob E. Reisch, who is General Chairman of the Committee on Arrangements for the 1950 meeting in Springfield, and a loyal Phi Chi alumnus. This combination should contribute to the success of the gathering and make the third annual get-together a successful one.

If you plan to attend this luncheon, let Doctor Reisch know as soon as possible. Clip and mail the form to him at once.

Dr. Jacob E. Reisch
500 South Fifth Street
Springfield, Illinois

I plan to attend the Phi Chi luncheon on Tuesday noon, May 23, during the annual meeting in Springfield. Please make _____ reservations for me.

Signed: _____

Address: _____

LOYOLA UNIVERSITY ALUMNI ASSOCIATION LUNCHEON

Thursday Noon, May 25, 1950

The Loyola University Medical Alumni Association will hold a luncheon and election meeting on Thursday, May 25, at 12 noon in Springfield, the location of the meeting to be announced later.

Acting Dean John J. Sheehan, M.D., Dr. Thesle T. Job, professor of Anatomy and Assistant Dean, and Rev. Michael I. English, S. J., Regent of the Stritch School of Medicine, will be guests of honor.

Tickets will be on sale near the registration desk and at the door.

Rev. G. G. Grant, S. J., Executive Secretary
Loyola University Alumni Association
820 North Michigan Avenue
Chicago 11, Illinois

Please reserve _____ places for me at the Loyola University Medical Alumni Association luncheon to be held Thursday noon, May 25, 1950 during the annual meeting of the Illinois State Medical Society.

I will call for these tickets at the registration desk.

Signed: _____

Address: _____

THE PHYSICIANS' ASSOCIATION THE DEPARTMENT OF PUBLIC WELFARE

State of Illinois

Wednesday Afternoon, May 24, 1950

Luncheon for the group will be served prior to the scientific meeting.

"Delusions of Multiple Pregnancy in Psychotics"

M. Wallenberg Chermak
Manteno State Hospital

"Acute Deaths in Schizophrenia"
Herman Josephy
Chicago, State Hospital

"Genital Self-Mutilations in Mental Patients"
Leon M. Beilin and Julius Gruenberg
Manteno State Hospital

"Treatment of Hip Fractures in Mental Patients"
Louis Olsman
Chicago State Hospital

"Group Psychotherapy: Social Activities as an Adjunct to Treatment"
J. W. Klapman
Chicago Community Clinic

WOMAN'S AUXILIARY to the ILLINOIS STATE MEDICAL SOCIETY

CONVENTION PROGRAM

The twenty-second annual meeting of the Woman's Auxiliary to the Illinois State Medical Society will be held at the Leland Hotel in Springfield on May 23, 24, 1950.

A cordial invitation is extended to wives of all members of the Illinois State Medical Society to attend the sessions and social functions.

PRELIMINARY PROGRAM

TUESDAY, MAY 23, 1950

9:00-1:30 — Registration — Main Lobby of the Hotel Leland

9:30 — Pre-convention Board Meeting — Sun Parlor — Second Floor, Hotel Leland

1:30 — Opening of General Session — Ball Room on Second Floor of Hotel Leland

6:00 — President's Reception — Lounge of Illini Country Club

7:00 — Dinner — Ballroom of Illini Country Club
Greetings — Dr. Harry M. Hedge, President-Elect Illinois State Medical Society
Entertainment

WEDNESDAY, MAY 24, 1950

9:00 — Registration — Main Lobby of the Hotel Leland

9:30 — General Session — Ball Room, Second Floor of Hotel Leland
Question and Answer Period

12:45 — President's Luncheon — Ball Room, Second Floor of Hotel Leland
Guest Speaker — Dr. Andy Hall, Outstanding General Practitioner Mt. Vernon

3:00 — Post-convention Board Meeting — Sun Parlor, Second Floor, Hotel Leland

4:00-6:00 — Tea

PLEASE MAKE HOTEL RESERVATIONS EARLY. WRITE THE LELAND HOTEL, SPRINGFIELD, AND MENTION THE AUXILIARY.

RESERVATION BLANK

Mrs. E. M. Egan, President
Woman's Auxiliary — I.S.M.S.
6741 Euclid Avenue
Chicago 49, Illinois

I plan to attend the annual meeting in Springfield and would appreciate reservations for the President's Reception and Dinner on May 23. Please hold _____ places for me.

I plan to attend the President's Luncheon on May 24. Please hold _____ places for me.

I will call for my tickets at the meeting when I register.

These tickets will be held until noon on Tuesday, May 23.

Signed: _____

Address: _____

By letting Mrs. Egan know that you plan to attend, she and her local committees can plan for a more efficient and a more outstanding meeting in Springfield this year. Please cooperate.

SCIENTIFIC EXHIBITS

National Guard Armory

COYE C. MASON,

Chairman and Director Chicago
Dwight E. Clark Chicago
Hugh A. Flack Chicago
Arkell M. Vaughn Chicago
Lawrence W. Peterson Chicago
Leo M. Zimmerman Chicago

BOOTH 1.

Routine Proctoscopic Examination of 1000 Presumably Normal Healthy Individuals

Exhibitor: Caesar Portes
Institution: Cancer Prevention Center, Henrotin Hospital, Chicago

BOOTH 2.

Cancer of the Rectum and Ano-rectal Diseases

Exhibitor: Orville Bonnett and John Van-Prohaska
Institution: University of Illinois College of Medicine, Chicago

BOOTH 3.

Carcinoma of the Colon and Rectum

Exhibitor: James Graham, Arthur Lindsay, James Cunningham
Institution: Springfield Clinic, Springfield

BOOTH 4.

Clinical Manifestations and Management of Jaundice

Exhibitor: Frederick Steigmann, Karl A. Meyer, Hans Popper, Edwin Stevens and Robert Goldbloom.
Institution: Hektoen Institute of Cook County Hospital; University of Illinois College of Medicine and Northwestern University Medical School

BOOTH 5.

Surgical Emergencies of Newborn

Exhibitor: Julius B. Richmond, John T. Reynolds
Institution: University of Illinois College of Medicine, Research & Educational Hospital, Chicago

BOOTH 6.

Pathogenesis and Treatment of Appendicitis.

Exhibitor: Warren H. Cole, William Requarth, and Miss Gloria Kenney
Institution: University of Illinois College of Medicine, Chicago

BOOTH 7.

Multiple Myeloma

Exhibitor: Carroll L. Birch, Louis R. Limarzi, P. L. Bedinger, Raymond S. Kibler
Institution: University of Illinois College of Medicine

BOOTH 8.

Practical Office Gynecology

Exhibitor: Walter J. Reich, Mitchell J. Nechtow and Angela Bartenbach
Institution: Chicago Medical School; The Cook County Hospital and the Cook County Graduate School

BOOTH 9.

Biopsy Technique and Importance

Exhibitor: A. Vass
Institution: Memorial Hospital, Springfield

BOOTH 10.

Fresh Tissue Demonstration

Exhibitor: Pathologists
Institution: Illinois Society of Pathologists

BOOTH 11.

Carcinoma of the Breast; Diagnosis and Selection of Treatment

Exhibitor: Louis River and Joseph Silverstein
Institution: Hektoen Institute, Cook County Hospital; Stritch School of Medicine, Loyola University; and the Jerome D. Solomon Memorial Research Foundation

BOOTH 12.

Treatment of Bromide Eruptions

Exhibitor: Theodore Cornbleet
Institution: University of Illinois College of Medicine

BOOTH 13.

Muscular Torticollis — Diagnosis and Treatment

Exhibitor; Fremont Chandler, Robert Bechtold and Ralph Lidge
Institution: University of Illinois College of Medicine

BOOTH 14.

Vascular Complications in Fractures and Traumatology

Exhibitor: Donald S. Miller, Leo Markin
Institution: Chicago Medical School

BOOTH 15.

Bone Metastases of Neurogenic Tumors of the Sympathetic Nervous System in Children

Exhibitor: E. William Immermann, Stritch School of Medicine, Loyola University and Edward L. Compere, Northwestern University Medical School
Institution: Children's Memorial Hospital, Chicago

BOOTH 16.

Studies on the Function of the Mammalian Spleen

Exhibitor: Leon O. Jacobson, Edna K. Marks, Evelyn O. Gaston, Melba Robson, Eric L. Simmons and William F. Bethard

Institution: The Argonne National Laboratory and the Department of Medicine of the University of Chicago

BOOTH 17.

Quantitative Studies on the Mechanisms of Gastric Secretion

Exhibitor: Lester R. Dragstedt, Edward R. Woodward, Edward H. Storer, Harry A. Oberhelman, Jr., and Curtis A. Smith

Institution: Department of Surgery, University of Chicago

BOOTH 18.

Curarizing Drugs in Man. A Comparison of Three Curarizing Agents in Unanesthetized Volunteers.

Exhibitor: Klaus R. Unna, Max S. Sadove

Institution: University of Illinois College of Medicine, Chicago

BOOTH 19.

Stereoscopic Kodachrome Transparencies of Diseases of the Fundus Oculi.

Exhibitor: Peter C. Kronfeld, Glen Floyd.

Institution: Illinois Eye & Ear Infirmary of the University of Illinois College of Medicine, Chicago.

BOOTH 20.

Allergic Manifestations of the Eye and Surrounding Structures.

Exhibitor: Samuel J. Taub, Robert E. Miller, B. R. Gutow, Robert G. Taub

Institution: The Chicago Medical School

BOOTH 21.

Destructive Operations.

Exhibitor: Fredrick H. Falls and Charlotte S. Holt

Institution: University of Illinois College of Medicine, Illinois State Department of Public Health

BOOTH 22.

Radioactive Iodine — Its Use in Diagnosis and Therapy

Exhibitor: Dwight Clark, O. H. Tripple, M.C. Moore, G. E. Sheline, R. H. Moe

Institution: Department of Surgery, University of Chicago.

BOOTH 23.

The Use of ACTH and Cortisone in the Experimental Therapy of Rheumatoid Arthritis.

Exhibitor: Rheumatoid Arthritis Research Committee

Institution: Michael Reese Hospital

BOOTH 24.

The Relationship Between Tobacco and Cancer of the Respiratory System

Exhibitor: Robert Schrek, Lyle A. Baker, T. Howard Clark

Institution: Veterans Hospital Administration, Hines

BOOTH 25.

The Uses and Limitations of Steroids in the Treatment of Advanced Carcinoma of the Breast.

Exhibitor: S. C. Taylor, III, Danley Slaughter, Roger S. Morris, L. Walter Fix

Institution: Presbyterian Hospital and University of Illinois

BOOTH 26

Intestinal Intubation

Exhibitor: Douglas K. Packard, David S. Fox Hilger Perry Jenkins

Institution: Department of Surgery, University of Illinois College of Medicine, and Woodlawn Hospital, Chicago

BOOTH 27.

Medical History in Illinois

Exhibitor: Committee on Medical History

Institution: Illinois State Medical Society

BOOTH 28.

Construction of a Substitute Bladder and Urethra

Exhibitor: James W. Merrick, R. K. Gilchrist, Howard Hamlin, I. T. Reiger

Institution: University of Illinois, Rush, and Presbyterian Hospital

BOOTH 29.

Development and Significance of Iron Deficiency Anemia

Exhibitor: Steven O. Schwartz and Sherman R. Kaplan, Chicago

Institution: Hektoen Institute for Medical Research, Cook County Hospital

BOOTH 30.

Differential Diagnosis of Jaundice

Exhibitor: M. A. Spellberg, Hugh Bennett, Wm. D. Masiman, Lyle A. Baker

Institution: Medical Service, Veterans Administration Hospital, Hines, and University of Illinois College of Medicine, and Northwestern University Medical School

BOOTH 31.

Treatment of Intracranial Aneurysm

Exhibitor: Harold C. Voris

Institution: Stritch School of Medicine, Loyola University

BOOTH 32.

Management of Injuries to Spinal Cord and Cauda Equina

Exhibitor: Lewis J. Pollock, Benjamin Boshes, Herman Chor, Isidore Finkelman, Meyer Brown, Alex J. Arieff, Joseph G. Kostrubala, Louis B. Newman

Institution: U. S. Veterans Administration Hospital and Northwestern University Medical School

BOOTH 33.

Etiological Diagnosis of Heart Disease

Exhibitor: Illinois Heart Association

Institution: Illinois Heart Association, affiliated with the American Heart Association

BOOTH 34.

Cancer Detection in General Practice

Exhibitor: The American Cancer Society

Institution:

BOOTH 35

Downstate Cancer Clinics

Exhibitor: Division of Cancer Control

Institution: Department of Public Health, State of Illinois

PROGRAMS OF SCIENTIFIC MOVIES

THREE FULL DAYS — MAY 23, 24, 25, 1950

National Guard Armory — Stage

Under the Direction of COYE C. MASON, Chairman.

Morning Program

Polio Diagnosis and Management
Introduction to Fractures
Endotracheal Anaesthesia
Injuries to Peripheral Nerves
Diagnosis of Cancer by Exfoliative Cytology
Tumors of Testicle

Afternoon Program

An Improved Technique for the Operative Treatment of Anorectal Lesions
Breast Cancer — The Problem of Early Diagnosis
Chronic Barbiturate Intoxication
Diseases of the Gall Bladder
The Bronchoscopic Clinic in Kodachrome Hemicolectomy for Carcinoma of the Right Side of The Colon (One Stage Procedure)
They Also Serve (Atomic Medical Cases of Japan — World War II)

TECHNICAL EXHIBITS

ABBOTT LABORATORIES — Booth 27

Abbott Laboratories will have an exhibit illustrating the advantages of Desoxyn Hydrochloride (Methamphetamine Hydrochloride, Abbott) as a cerebral stimulant, vasopressor agent and adjunct to the management of obesity. Four transparencies which are illuminated in succession depict the advantages of smaller dosage, quicker action, longer effect and fewer side-effects.

A. S. ALOE COMPANY — Booth 12

The A. S. Aloe Company cordially invites you to booth 12 where they are exhibiting surgical supplies and equipment, their own specialized items including the new Gilbert Graves speculum, and many others used in a modern doctor's office.

THE ARMOUR LABORATORIES — Booth 29

The Armour Laboratories will welcome members of the Illinois State Medical Society to visit the Armour exhibit, booth No. 29 while attending their Annual Convention. Information and literature on many new items in the Field of Endocrinology recently made available to the medical profession by The Armour Laboratories, may be secured at the Armour booth.

AYERST, MCKENNA & HARRISON Limited — Booth 19

"PREMARIN" (Estrogenic Substances — water-soluble) — a highly effective and well-tolerated preparation of naturally-occurring, orally-active, conjugated estrogens (equine).

The potency of "Premarin" is expressed in terms of its principal estrogen, sodium estrone sulfate.

"Premarin" provides convenience of administration and flexibility of dosage. Four potencies of "Premarin" Tablets are available. "Premarin" is also presented in liquid form.

THE BORDEN COMPANY — Booth 9

Meet BIOLAC, a liquid modified milk for infant feeding: DRYCO, with its formula flexibility; MULL-SOY for your milk allergic patients; powdered whole milk KLIM: the improved milk sugar, BETA-LACTOSE: and the MERRELL-SOULE PROTEIN and LACTIC ACID MILKS. Borden men are pleasant men! We invite your attention to GERILAC, a vitamin-fortified powdered milk for well-rounded nutrition in convelescence, pre and post-operative diets, geriatrics, pregnancy and lactation, and soft and liquid diets.

CAMEL CIGARETTES — Booth 50

CAMEL Cigarettes will feature color slides of background data from their newest research. After weekly examinations of the throats of hundreds of men and women smoking CAMEL Cigarettes exclusively for thirty days, throat specialists reported "Not one single case of throat irritation due to smoking CAMELS."

CARNATION COMPANY — Booth 36

You are invited to visit booth No. 36 where you will see an attractive display on Carnation Evaporated Milk — "the milk every doctor knows". Some valuable information on the use of this milk for infant feeding, child feeding, and general diet will be presented and the method by which Carnation is generously fortified with pure crystalline Vitamin D — 400 U. S. P. units per reconstituted quart — will be explained. Interesting literature will also be available for distribution.

CHICAGO PHARMACAL COMPANY — Booth 2

The CHIMEDIC line remains complete and modern but at this meeting the Chicago Pharmacal Company will celebrate fifty years of manufacturing quality pharmaceuticals by concentrating attention on the newer parenteral products.

CIBA PHARMACEUTICAL PRODUCTS, INC. —Booth 25

Ciba Pharmaceutical Products, Inc., Summit, New Jersey (Booth No. 25) invite you to visit their exhibit for latest information on CARMETHOSE, a non-systemic mucin like colloid with a high acid combining quality. Also featured will be PRISCOLINE (formerly known as PRISCOL), a valuable adjunct to the treatment of peripheral vascular disease.

Representatives in attendance will gladly answer any questions about these and other Ciba Products.

THE COCA-COLA COMPANY, — Booth 60

Ice-cold Coca-Cola served through the courtesy and cooperation of the Springfield Coca-Cola Bottling Co. and The Coca-Cola Company.

F. A. DAVIS COMPANY, — Booth 21

Be sure to see the excellent line of medical books presented by the F. A. Davis Company. Included in their exhibit are The Cyclopedia of Medicine, Surgery and Specialties; Reimann-Treatment in General Medicine; Stroud-Cardiovascular Disease; Troncoso-Internal Diseases of the Eye; Pillmore-Clinical Radiology; McCrea-Clinical Cystoscopy; Alpers-Clinical Neurology; Murphy-Acute Medical Disorders; Judovich and Bates-Pain Syndromes; Goodale-Clinical Interpretations of Laboratory Tests.

DOAK COMPANY, INC. — Booth 58

Physicians interested in dermatological conditions please visit booth 58. Colloids of iron, sulphur, bismuth and calcium for parenteral medications are also demonstrated. Mr. C. E. Ruhlmann is in charge of the exhibit.

THE DOHO CHEMICAL CORPORATION — Booth 48

The Doho Chemical Corporation and its subsidiary, Mallon Chemical Corporation, makers of Auralgan, O-tos-mo-san and Rectalgan, are proud to announce their new nasal decongestant, RHINALGAN — a balanced formulation of two active chemical compounds that give prolonged vasoconstriction — used as a spray, in our patented Dohony Spray-mist atomizer — pleasant tasting, with no systemic effect (pressor or respiratory), and can be safely used for infants and children.

Our representatives are anxious to explain the merits of Rhinalgan and distribute samples of this innovation.

EISELE AND COMPANY — Booth 38

Eisele and Company will present their precision line of hypodermic syringes and needles. They will also show their clinical thermometers, elastic bandages and clinical glassware.

ELI LILLY AND COMPANY — Booth 31

Your Lilly medical service representative cordially invites you to visit the Lilly exhibit

located in space No. 31. Many new therapeutic developments will be featured and literature on these products will be available. Visiting physicians will be aided in every way possible.

ENCYCLOPAEDIA BRITANNICA — Booth 40

Exhibit of the current printing of Encyclopaedia Britannica with sustaining and Library Research Services.

C. B. FLEET CO., Inc. — Booth 55

C. B. Fleet Co. Inc. cordially invites you to stop by booth 55 for a short visit with the representatives who see you in your office about once a year. Perhaps there is something about Phospho-Soda (Fleet), the pure, stable, aqueous concentrate of the two U. S. P. Sodium Phosphates, you would like to discuss with them.

GENERAL ELECTRIC X-RAY CORPORATION — Booth 54

The General Electric X-Ray Corporation will exhibit the Maxicon — a revolutionary new idea in x-ray apparatus design. Comprised of a number of components that can be varied in assembly, or added to any unit at any time, it covers the range of diagnostic apparatus from the horizontal Bucky table to the motor-driven combination unit. A selective line of apparatus it allows x-ray facilities to grow by adding components to a basic unit, a step at a time.

H & M SALES COMPANY — Booth 52
HANOVIA CHEMICAL & MFG COMPANY — Booth 37

Hanovia will feature a new Short Wave Diathermy machine that meets the Federal Communication Commission's requirements, and is possessed of many features that will be worth your while to become acquainted with. A complete line of self-lighting ultraviolet quartz lamps for therapeutic purposes, for orificial and general body irradiation will be on display as well as Germicidal lamps for the destruction of air-borne bacteria and the new Fluro Lamp for diagnostic purposes.

THE HARROWER LABORATORY, Inc. — Booth 10

The Harrower exhibit has three main points of interest: 1) Gastroscopic pictures illustrating the coating action of Mucotin, the "Council Accepted" mucin antacid. 2) Schematic presentation of the physiological action of Prulose, a corrective laxative. 3) The role of the Kreb Cycle and Hematocrin in energy metabolism is graphically shown. Reprints and samples will be available at the booth.

HOFFMAN — LA ROCHE INC. — Booth 32

Roche will feature its antihistamine, THEPHORIN, and various forms of it. THEPHORIN, which is distinguished by relative freedom from drowsiness, is available as THEPHORIN OINTMENT, a superior antipruritic containing 5% of Thephorin; THEPHORIN LOTION, an emollient preparation containing 5% of Thephorin, indicated in allergic skin disorders; THEPHORIN-AC, a tablet containing Thephorin, acetophenetidin, aspirin and caffeine, indicated for aborting and treating the common cold; and THEPHORIN EXPECTORANT, an effective cough preparation indicated in allergic type coughs.

Stop at the Roche booth where representatives will be in attendance to discuss these and other Roche products of interest to physicians.

IRWIN, NEISLER & COMPANY — Booth 13

Your are cordially invited to visit the Irwin, Neisler exhibit. Professional service representatives will be in attendance to give any information desired about such outstanding Irwin, Neisler products as Veratrite, Vertavis and Chobile. Literature and samples will be available.

"JUNKET" BRAND FOODS — Booth 16

Visual aids explain the importance of rennet in infant and adult nutrition and the value of rennet deserts in both normal and restricted diets. Trained personnel available at all times to answer questions in detail. Authoritative literature is available describing dietary applications of rennet products. Complimentary packages of "Junket" Rennet Powder and "Junket" Rennet Tablets for the profession.

THE KELLEY-KOETT MANUFACTURING CO. — Booth 49

Keleket X-Ray extends a cordial invitation to all visitors to the Illinois State Medical meeting to visit booth 49. On display will be the versatile K-30 fluoroscope unit with the orthodiagraphic attachment. Also displayed a complete line of medical X-ray accessories and supplies.

LANTEEN LABORATORIES, INC. — Booth 34

Lanteen Laboratories, Inc., extend a cordial invitation to visit their booth No. 34. Representatives will be happy to discuss an improved contraceptive technique. All of the well known LANTEEN products will be available for discussion.

LEDERLE LABORATORIES DIVISION — Booth 41

You are cordially invited to visit our exhibit in space No. 41, where you will find representatives who are prepared to give you the latest information on Lederle products.

LINCOLN LABORATORIES, INC. — Booth 59

Lincoln Laboratories, Inc. presents its line of precision parenterals and tablets. Featured will be the aqueous suspensions of the sex hormones together with many of the outstanding tablet specialties. Trained representatives will be on hand to discuss our complete line of products. Samples and literature are available.

J. B. LIPPINCOTT COMPANY — Booth 42

J. B. Lippincott Company presents an interesting and active exhibit of professional publishing. With the "pulse of practice" centering in an advisory editorial board of active clinicians who constantly review the field, current and coming trends in medicine and surgery are known continually. On the studied recommendations of these medical leaders, Lippincott Selected Professional Books are undertaken.

M & R DIETETIC LABORATORIES, Inc. — Booth 43

Similac Division, M & R Dietetic Laboratories, Inc., booth number 43, will display Similac, a food for infants, and Cerevim, a cereal food. Our representatives will appreciate the opportunity to discuss the merit and suggested application for both the normal and special feeding cases.

THE S. E. MASSENGILL COMPANY — Booth 51

The S. E. Massengill Company calls your attention to its showing of the comparative advantages of dual and triple sulfonamide combinations. With an emphasis on the reduced renal hazard due to lessened crystalluria, decreased incidence of allergic manifestations, and greater therapeutic efficacy due to lessened acetylation, the exhibit offers excellent opportunity for your discussion of the sulfonamide story. Medical Service Representatives of the Company will be pleased to register you for samples and literature.

MEAD JOHNSON & COMPANY — Booth 15

Dextri-Maltose, Oleum Percomorphum, Pablum, Pabena, Olac and other Mead Products used in Infant Nutrition will be on display at the Mead Johnson Exhibit at your Illinois State Medical Society Meeting. Protenum, a new high protein product, will be displayed. Also, Lonalac, for low sodium diets. Our representatives at the Exhibit will be glad to discuss with you the new improvements of Amigen and Amisets.

MEDICAL ARTS BUPPLY CO., — Booth 3

The Medical Arts Supply Company of Chicago, Illinois, will represent and display the finest in cardiographic machines, medical equipment, instruments, and physio-therapy apparatus.

Outstanding manufacturers represented will be Sklar, Hamilton, Birtcher, McKesson, Edin, Ritter, Raytheon, and numerous others.

Our endeavor is to fully supply the medical profession, from a bank pin to the heaviest equipment.

THE MEDICAL PROTECTIVE COMPANY — Booth 39

The Medical Protective Company's representatives, thoroughly trained in professional liability underwriting invites you to visit exhibit booth number thirty-nine. They are entirely familiar with the principles of the reciprocal right and duties of a doctor and patient and with the circumstances peculiar to that relationship. They will be glad to explain how this company meets the exacting requirements of adequate liability protection, which are peculiar to the Professional Liability field.

V. MUELLER & CO. — Booth 44

You are cordially invited to the V. Mueller & Company Exhibit, where as usual, you will find just about everything that is new in the Surgical Instrument Field. Representatives, Chet Lovested and Milt Harmer will be on hand to greet their many friends.

MAURICE NATENBERG, PUBLISHERS REPRESENTATIVE — Booth 14

This exhibit will be devoted to a display of medical books of some of the leading publishers. The books will be attractively displayed in shelves and on tables and arranged according to subject, rather than individual publishers.

THE NATIONAL DRUG COMPANY — Booth 22

You are cordially invited to visit the booth of The National Drug Company. On display will be a few of our featured products, namely, RESINAT — Council Accepted anion exchange resin, PROTINAL POWDER — Council Accepted, protein-carbohydrate mixture AVC Improved and DTP. Trained representatives will be in attendance to answer questions concerning any of National's products.

A. R. NECHIN COMPANY — Booth 11

In booth 11 will be exhibited the Jones MOTOR BASAL, the original waterless metabolism unit. Demonstrations will be made to show how the unit automatically corrects for barometric and temperature changes. Also on exhibit will be the CARDIOTRON, a portable direct-recording electrocardiograph which affords new convenience in cardiology combined with the highest degree of scientific accuracy. The minutest heart action is precisely and permanently recorded the instant it occurs on standard graph paper.

PARKE, DAVIS & COMPANY — Booth 20

Members of the PARKE, DAVIS & COMPANY Medical Service Staff will be on hand at our Commercial Exhibit for consultation and general discussion of the Products classified in our Pharmaceutic, Antibiotic, and Biologic Lines. Important Specialties, such as Chloromycetin, Penicillin S-R, Benadryl, Vitamin Products, Hypnotics, Antibiotics, Etamon, Oxycel, Thrombin Topical, Influenza Virus Vaccine, and other Biologics will be featured. You are cordially invited to visit our booth with the assurance that your interest will indeed be very much appreciated.

PHILIP MORRIS & CO. LTD., INC. — Booth 33

Philip Morris and Company will show the results of research on the irritant effects of cigarette smoke. These results show conclusively that Philip Morris are less irritating than other cigarettes. An interesting demonstration will be made on smokers at the exhibit which will show the difference in cigarettes.

SANBORN COMPANY — Booth 45

Featured at the Booth No. 45 will be the new Sanborn Electrophrenic Respirator, a device for securing artificial respiration by controlled electrical stimulation of the phrenic nerve.

For the clinician, there will be demonstrations of the Viso-Cardiette, direct-writing electrocardiograph; the photographic Instomatic Cardiette; and the Metabulator, latest model Sanborn metabolism tester.

And for the research-and-teaching physician, actual instruments or complete data will be available concerning the Poly-Viso (multi-channel biophysical research recorder), the Electromanometer (for pressure recordings), and other new Sanborn instruments for cardiac and other research, teaching, and diagnosis.

SANDOZ PHARMACEUTICALS — Booth 30

Physicians attending the Illinois State Medical Society convention are cordially invited to visit the Sandoz Pharmaceuticals display which will feature the following:

CAFERGONE — the first effective oral preparation for the treatment of migraine and related headaches.

BELLERGAL — a time-tested preparation for use in functional disorders.

Other products displayed at this convention are Belladenal, Mesantoin, Dihydroergotamine — D. H. E. 45 and Ipesandrine.

A new handbook listing our products will be available and representatives in attendance will gladly answer any questions about these and other Sandoz products.

W. B. SAUNDERS COMPANY — Booth 1

We invite the doctors attending the Illinois State Medical Society Meeting to visit our exhibit where we will display a complete line of our books including Hyman's "Integrated Practice of Medicine," Custer's "Atlas of Blood and Bone Marrow," Sunderman & Boerner's "Normal Values," Friedberg's "Diseases of the Heart," Crile's "Practical Aspects of Thyroid Disease," Levine & Harvey's "Clinical Auscultation of the Heart," Fine's "Care of the Surgical Patient," Boies' "Otolaryngology," Boyd's "Malariology," Wolff's "Electrocardiography," Wells' "Clinical Pathology," 2nd edition of Hauser's "Diseases of the Foot," "The Cytologic Diagnosis of Cancer," Bockus' "Postgraduate Gastro-enterology," Conn's "1950 Current Therapy," Mitchell-Nelson's "Textbook of Pediatrics," Nesselrod's "Proctology," and many others.

SCHENLEY LABORATORIES, INC. — Booth 61

Attending physicians are cordially invited to visit the SCHENLEY LABORATORIES exhibit. Featured at the booth are RUTAMINAL, combining rutin, aminophylline and phenobarbital for protection in certain cardiovascular disorders and diabetic retinopathies; TITRALAC, an antacid with a titration curve like that of milk; PELVICINS, 200,000 unit penicillin vaginal suppositories; PENESTHETTES, penicillin lozenges with benzocaine; SEDAMYL, the unique sedative acting without hypnosis; and VASCUTUM, a new nutritional formula for cardiovascular protection in geriatrics. Qualified personnel in attendance will provide full information.

SCHERING CORPORATION — Booth 28

Buccal tablets of **Oreton, Progynon, Proluton,** and **Cortate** with the exclusively new

base, Polyhydrol, will be featured at the Schering exhibit. Polyhydrol makes possible complete absorption of hormones via the buccal route providing advantages of high effectiveness, convenience, and economy. **Trimeton** and **Chlor-Trimeton,** two oustanding antihistamines, and **Coricidin,** Schering's new treatment for the common cold, containing Chlor-Trimeton, aspirin, phenacetin, and caffeine, will highlight the exhibit.

Schering Representatives will be present to welcome you, and will be happy to answer inquiries concerning Schering's new products as well as their other hormone, x-ray diagnostic, chemotherapeutic, and pharmaceutical specialties.

G. D. SEARLE & CO. — Booth 6

You are cordially invited to visit the Searle booth where our representatives will be happy to answer any questions regarding Searle Products of Research.

Featured will be Dramamine for the prevention and active treatment of motion sickness; Alidase, for hypodermoclysis; Ruphyllin, for abnormal capillary fragility; Hydryllin, new and effective antihistaminic, as well as such time proven products as Searle Aminophyllin in all dosage forms, Metamucil, Ketochol, Floraquin, Kiophyllin, Diodoquin, Pavatrine and Pavatrine with Phenobarbital.

SECURITY LABORATORIES — Booth 62

The Security Laboratories, Burlington, Iowa, the midwest's complete physicians' and surgeons' supply house, is exhibiting Hamilton Furniture, McKesson Basal Metabolors, Sklar Stainless Steel Instruments, Profex X-rays, American Cystoscope Makers, Inc. Urological Instruments and Catheters, Bard-Parker Products, Davis and Geck sutures, The B. F. Goodrich Company and Devol Company rubber Sundries, Ritter Company Eye, Ear, Nose, and Throat Equipment, and the New Burdick Direct Recording Electrocardiograph, the Raytheon 'Microtherm' microwave Diathermy, and other products of leading manufacturers. The exhibit will be under the direction of Ralph E. Myers and J. Burton Wahl.

SHARP & DOHME — Booths 56 & 57

Visitors attending the Illinois State Medical Society meeting are cordially invited to visit the Sharp & Dohme exhibit in booths Nos. 56 and 57. Stable, portable 'Lyovac' Normal Human Plasma irradiated to destroy viral contaminants that might cause homologous serum hepatitis merits your attention. Unusual Specialties including 'Cremo-sulfonamides, pleasantly flavored, palatable suspensions of the most effective systemic and enteric sulfonamides, and 'Delmor', a delicious nutrient powder, also will be of major interest.

SPENCER, INCORPORATED — Booth 7

You are cordially invited to visit our exhibit of Spencer Supports for abdomen, back, and breasts —- individually designed to meet the medical indications of the individual patient. Of special interest is Spencer's new colostomy support design — a valuable aid in postoperative training. Also featured will be the Spencer Simulated Vertebrae Model and the Spencer Posture Manikin which can be obtained to demonstrate to patients the effects of faulty posture.

E. R. SQUIBB AND SONS — Booths 4 & 5

Squibb will feature Service Material in various fields of Therapy at the 1950 Annual Meeting of the Illinois State Medical Society.

Monographs on Therapy and practical aids will be available for your perusal from which you may select informative items to fill your particular need.

Come and browse in the Squibb Booth!

STETHETRON SALES COMPANY — Booth 26

Stethetron Sales Company demonstrate Council accepted Electronic Stethoscopes! Employ electronics to amplify the faintest cardiac murmur, fetal heart sound or respiratory rale. Pocket size unit compensates for office noise level and likely hearing deficiencies at high and low frequencies. Connect Stethoscope to many Cardiographs for sound tracings — connect Stethoscope to wire recorders. Hear and determine the progress of a lesion by play back. You are invited to determine whether we can improve your auscultation.

SUTLIFF & CASE COMPANY, INC. — Booths 46 & 47

As usual, the representatives serving in your territory will be on hand to greet you and acquaint you with a few of our new pharmaceutical preparations. We sincerely invite you to visit our exhibit.

UNIVERSAL PRODUCTS CORPORATION — Table Space

Of special interest is the new "Surgeon's Fingalyte." You have often wished to have a light at the end of your finger tip. "Fingalyte" is just that, penetrates and throws light on and into all tissues or crevices. It is low wattage and cool for Transillumination. Will save time for many Surgeons and General Practitioners. Another feature is the headlight that weighs only two ounces, all contained in a small case, in a constant vapor sterilizer bath. The Surgeons' "X-L-Lyte" will also be demonstrated. This instrument is not new, but has been in service for 15 years, and over 60,000 in use — if you don't have one, see it.

THE UPJOHN COMPANY — Booth 17

The Upjohn exhibit will present the anticoagulant family: Heparin, Depo-Heparin, and Dicumarol, with particular emphasis placed upon Depo-Heparin.

When heparin is prepared in a gelatin vehicle (Depo-Heparin) and administered intramuscularly, markedly prolonged effects are obtained. A single injection of 1 cc. (200 mg.) of Depo-Heparin will prolong the blood coagulation time for about twenty-four hours.

U. S. VITAMIN CORPORATION — Booth 8

Exhibit demonstrates the greatest vitamin technicological advance of the present decade . . "oil-in-water" multi-vitamin solutions . . . includes Vi-Syneral Injectable, an **aqueous** parenteral multi-vitamin solution, ready for immediate injection; and the **original oral** aqueous multi-vitamin formula, Vi-Syneral Vitamin Drops. Also, professional samples on Methischol, Vi-Syneral capsules, Tri-Sulfanyl, Poly-B, Vi-Litron and others.

VARICK PHARMACAL COMPANY, INC. — Booth 23

The makers of DIGITALINE NATIVELLE, the original digitoxin, have prepared an interesting and informative exhibit on new and broader concepts of treating the failing heart. Emphasis is given to the role of DIGITALINE NATIVELLE, the preparation of choice in congestive failure.

Literature and samples of DIGITALINE NATIVELLE will be available as well as copies of our recently published, "Low Sodium Diet," brochure. We cordially invite you to visit our exhibit.

WINTHROP STEARNS, INC. — Booth 35

Winthrop-Stearns, Inc., New York, extends a cordial invitation to visit its booth 35 where representatives will be on hand to discuss the latest therapeutic contributions made by this firm. Featured will be ISUPREL, new, more efficient and convenient bronchodilator; Mebaral, sedative and antiepileptic, produces tranquility without drowsiness; Phisoderm With Hexachlorophene 3%, hypoallergenic soap-free detergent with antibacterial properties on routine use; Neocurtasal, sodium-free seasoning agent.

THE ZEMMER COMPANY — Booth 24

The Zemmer Company extends to the members of the Illinois State Medical Society and their guests a cordial invitation to visit exhibit booth No. 24 where they will display a number of their leading ethical pharmaceutical preparations. The exhibit will be in charge of capable representatives.

MAKE YOUR HOTEL RESERVATION

If you plan to attend "The Andy Hall Annual Meeting" you should make your hotel reservation NOW.

The Hotels in Springfield are: Abraham Lincoln, Leland, St. Nicholas, Elks Club (men only) Illinois Hotel, Empire, Palmer Hotel, Grand Hotel.

THE CHAMBER OF COMMERCE Convention Bureau, Springfield, Illinois
Convention Bureau
Springfield, Illinois
Gentlemen:

Please reserve the following accommodations for me for the annual meeting of the Illinois State Medical Society to be held in Springfield on May 23, 24, 25, 1950.

1st choice: _____
Name of hotel — Type of accommodation

2nd choice: _____
Name of hotel — Type of accommodation

3rd choice: _____
Name of hotel — Type of accommodation

I plan to arrive in Springfield: _____
(Date and approximate time)

I plan to leave Springfield: _____
(Date and approximate time)

Signature: _____

Address: _____

Town: _____

ILL.M.J. 97:199 (APR)'50

CORRESPONDENCE



CORRECTION

In the editorial article on "Antihistaminic Drugs" by Dr. Samuel M. Feinberg in the February issue of the Journal the wording leaves the inference that Benadryl, Decapryn and Phenergan are less sedative than Pyribenzamine, Thenylene, Tagathen and similar drugs. This misleading statement is due to an error in typing, in which the two phrases "one potent and highly sedative" and "one potent and moderately sedative" were transposed. The correct statement should be as follows:

"It is the writer's recommendation that the average physician become familiar with a series of three antihistamines, one less potent and less sedative, one potent and moderately sedative and one potent and highly sedative. From the first group he could choose either Antistine, Neohetramine, Di-paralene and Thephorin. From the second group he could select either Pyribenzamine, Neoantergan, Thenylene, Tagathen, Diatrin, Pyrrolazote, Trimeton and Chlortrimeton. The third could be chosen from Benadryl, Decapryn and Phenergan. With a combination of three diversified drugs almost any situation responding to antihistamine could be met."

CANCER FILM AVAILABLE

To The Editor:—

The Illinois Department of Public Health in their film library has a copy of the film release on cancer by the National Cancer Institute, entitled *Breast Cancer — The Problem of Early Diagnosis.* This film is for professional education; is a 16 mm sound film in color; and the running time is 34 minutes.

Perhaps some of the local county medical societies in planning their programs for the fiscal year 1950-1951 would like to take advantage of this film and book it ahead for whatever dates they desire. Also, it might be possible to supplement already planned programs with the film. Certainly cancer of the breast is a pertinent subject, particularly in view of the fact that in the past few years there has been little over-all effect on its mortality rate.

If those county medical societies interested in showing the film will contact us, we will arrange for delivery of the film for the dates specified.

G. Howard Gowen, M.D., Chief,
Division of Cancer Control

POSTGRADUATE COURSE IN ENDOCRINOLOGY

The American College of Physicians announces a Postgraduate Course in Endocrinology at the Hotel La Salle, Chicago, May 15-20, 1950. The course will be given under the auspices of the University of Illinois and the director is Dr. Willard O. Thompson of Chicago.

An outstanding faculty will take part in the teaching of the course and will include the following men:

Dwight E. Clark, Chicago, Warren H. Cole,

Chicago, Arthur R. Colwell, Evanston, Albert Dorfman, Chicago, Ray F. Farquharson, Toronto, Smith Freeman, Chicago, E. C. Hamblen, Durham, Norris J. Heckel, Chicago, Dwight J. Ingle, Kalamazoo, Andrew C. Ivy, Chicago, Robert W. Keeton, Chicago, Allan T. Kenyon, Chicago, David E. Markson, Chicago, E. Perry McCullagh, Cleveland, Irvine McQuarrie, Minneapolis, John R. Mote, Chicago, Warren O. Nelson, Iowa City, Theron G. Randolph, Chicago, Edward F. Rosenberg, Chicago, Edward H. Rynearson, Rochester, Samuel Soskin, Chicago, Willard O. Thompson, Chicago and Henry H. Turner, Oklahoma City.

The course is designed primarily for physicians who wish to bring themselves up to date in the field of endocrinology. The fee is $30.00 for members of the College and $60.00 for nonmembers. The enrollment is limited to 100. Physicians wishing to take the course should apply at once to Mr. E. R. Loveland, Executive Secretary, The American College of Physicians, 4200 Pine Street, Philadelphia 4, Pa., and should make their hotel reservations immediately through Mr. M. P. Mathewson, Hotel La Salle, Chicago.

"YOUR MENTAL HOSPITALS" FOSTER HOMES FOR THE MENTALLY ILL

Since 1941 the Illinois Department of Public Welfare has been using the "Family Care" or "Foster Home" placement of recovered or improved mentally ill patients. Placements are made after a careful screening of the patients by the psychiatric staff and the psychologist, and after a thorough study of the home facilities by the social service department. All patients placed on family care are done so on a prescription basis, that is to say, the patient's needs are taken into consideration and a particular type of home and family surroundings are selected on an individual basis.

In the institutions, subsequent to treatment there are patients who are ready for partial or complete discharge; yet due to circumstances in their home they cannot be returned. They are able to make their adjustment in the foster home under the family care placement and gradually can return to the competitive existence of daily life in the community. Foster homes are stepping stones in the recovery and readjustment of mentally ill. Some of the patients are placed in private homes, some in farms, others in simple industries where the stress *and* strains are minimal. For example, a group of young men were placed in a nursery where they were housed and assisted daily in the growing of plants and flowers. They made an excellent adjustment and learned how to care for themselves as well as the plants.

The patient, after placement, continues under the supervision of the State Hospital and may be returned for medical, surgical, or psychiatric reasons without any legal formalities.

During the past eight years, this program has gradually expanded and at the present time, with a total population of 44,000 patients in the eleven mental hospitals — there are 820 patients on family care, or approximately two percent. The State of Illinois pays for the boarding out of patients, where necessary, usually up to sixty-five dollars a month. This is equivalent to State Hospital per capita cost. Many of the patients take on light tasks in the homes and frequently earn their own board and room, while others earn salaries.

The following is a summation of the cases on family care:

Total State Mental Hospital Population — 44,000

No. Cases on Family Care — 820

Source of Funds	*Per Cent*
Under Department Public Welfare Funds	28.6
Own Earnings	52.0
Own Funds	16.0
Other Public Agencies	3.0
Under Private Agencies	0.4
	100.0

Many of the patients who have been placed on family care have made excellent adjustments, have been completely discharged and are now self-supporting self-respected individuals in their communities.

Additional homes are needed, and the State Hospital in your vicinity will be happy to furnish you with additional information.

G. A. WILTRAKIS, M. D.
Deputy Director

TWENTY-ONE CLINICS FOR CRIPPLED CHILDREN

Doctor Herbert R. Kobes, director of the University of Illinois Division of Services for Crippled Children has released the May schedule of clinics for physically handicapped children. The Division will conduct 16 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medical social and nursing services. There will be 4 special clinics for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in cooperation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

The May clinics are:

May 2—Quincy, Blessing Hospital

May 3—Joliet, Will Co. TB Sanitarium

May 4—DuQuoin, Marshall Browning Hospital

May 9—Peoria, St. Francis Hospital

May 9—E. St. Louis, St. Mary's Hospital

May 10—Hinsdale, Hinsdale Sanitarium

May 11—Springfield, St. John's Hospital

May 11—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County

May 12—Chicago Heights (Rheumatic Fever), St. James Hospital

May 16—Casey, High School

May 17—Sterling, Sterling Public Hospital

May 18—Rockford, St. Anthony's Hospital

May 19—Monticello, North School

May 23—Peoria, St. Francis Hospital

May 23—Effingham (Rheumatic Fever), St. Anthony's Hospital

May 24—Evergreen Park, Little Company of Mary

May 24—Alton, Alton Memorial Hospital

May 25—Bloomington, St. Joseph's Hospital

May 26—Chicago Heights (Rheumatic Fever), St. James Hospital

May 31—Springfield (Cerebral Palsy), Memorial

ILLINOIS MEDICAL SERVICE

This is the first of a series of brief reports relative to Blue Shield (formerly Chicago Medical Service) designed to keep the medical profession informed as to developments.

Blue Shield now has an enrollment of about 180,000 and is growing steadily. As of March 1, there were 700 groups enrolled, 11,000 claims established and $550,000 paid out on claims. The original $25,000 loan made by the Chicago Medical Society has been repaid in full.

The present Trustees are: Dr. George H. Coleman, Dr. Richard M. Davison, Dr. Warren W. Furey, Dr. H. Close Hesseltine, Dr. Percy E. Hopkins, Dr. Harold W. Miller, Dr. Rollo K. Packard, Dr. Frederick W. Slobe, Dr. Willard O. Thompson and Dr. Arkell M. Vaughn.

State-wide Development.—State-wide expansion is progressing. The name of Chicago Medical Service was recently changed to Illinois Medical Service as a result of approval by the Council of the Chicago Medical Society on November 8, and the meetings of Blue Shield members and participating physicians held on December 16, 1949, and by the State Department of Insurance. It is felt that the new name is more representative in view of the state-wide expansion of Blue Shield, 26 county medical societies having already endorsed the Plan.

Illinois Medical Service can proceed with enrollment in other counties after a county medical society passes an official resolution towards affiliating with it and after 51 per cent of the physicians, licensed to practice medicine and surgery in all its branches, have signed cards as participating physicians. This has been done in the following counties: Carroll, Clinton, Coles-Cumberland, Cook, De Kalb, Douglas, Du Page, Fulton, Henry-Stark, Iroquois, Jackson, Jo Daviess, Knox, Lake, Macon, Marion, Ogle, Peoria, Randolph, Sangamon, Shelby, St. Clair, Stephenson, Tazwell, Vermilion and Williamson. Employers who have branches throughout the state, farm bureaus and home bureaus, desire a state-wide Plan because of uniformity of premiums and benefits and facility of administration. And there is the urgent national need for rapid augmentation of enrollment. The manifest advantages of local supervision are retained through utilization of the personnel in the regional branches; also, close professional

liaison will be maintained through committees appointed by county medical societies. Further, it is planned to have representation on the Board of Trustees from either counties or councilor districts.

Professional Liaison. — By virtue of action take by the Council of the Chicago Medical Society on December 13, 1949, the following committee representing most of the medical specialties was appointed to deal with Blue Shield professional relations: Dr. Paul Bucy, Chairman; Dr. Howard B. Carroll; Dr. E. L. Compere; Dr. John Gilmore; Dr. Joseph Keifer; Dr. G. Henry Mundt; and Dr. John R. Wolff. It is hoped that this Committee will meet monthly at the Blue Shield headquarters. Problems relative to claims and general administration will be discussed with this Committee in order to maintain close contact between Blue Shield and the profession. In addition, an Adjudication Committee of physicians meets monthly. As down-state development proceeds, committees appointed either by county medical societies or the Illinois Medical Society (or both) will furnish representation in a similar capacity.

The Indemnity Schedule. — The Indemnity schedule is a partial list of procedures and services for which payment of benefits is made direct to the physician, for instance, payment of $100 for an appendectomy or $60 for an obstetrical delivery. Payment is made only to physicians, the single exception being where the physician has already been paid in which instance payment is made to the subscriber as a reimbursement. Physicians are requested to state their fee on the Blue Shield form in order that statistical studies may be made concerning the percentage of charges which Blue Shield benefits cover.

Benefits for procedures not listed in the certificate are estblished on a comparable basis as experience grows, with the help of committees appointed by special medical societies, and by the Adjudication Committee. The recently appointed Blue Shield Professional Relations Committee appointed by the Chicago Medical Society representing the various specialties will prove very helpful in this connection. Benefits as listed in the present certificate are, in general, quite binding; however, when the new certificate is issued, adjustments and revisions will be made with the tendency toward increased benefits and liberalizations.

The indemnity schedule, as is clearly stated in the certificate, neither establishes nor has any relationship to the physician's fee. The physician is the sole judge as to what his fee shall be. It is hoped, however, that the physician will give serious consideration towards accepting the scheduled benefits as payment in full for services rendered those in the so-called "low-income" group or perhaps, stating it in a better way, when a higher fee would cause a hardship. The schedule, based on low premiums, is designed for those in that category to enable them to obtain low-cost coverage for professional fees connected with hospitalization and for some services rendered out of the hospital.

It is obvious, then, that in some instances the scheduled benefits may seem disproportionately low in comparison with the bills rendered. Physicians can render a distinct service in developing a better understanding among Blue Shield subscribers by explaining the meaning of the certificate and the philosophy of low-cost, non-profit coverage to them. By the same token, if the fee is inordinately high in comparison with the patient's financial status, both the medical profession and Blue Shield suffer adverse criticism. Some complaints on this score might be prevented if the patient requests or the physician states the amount of his fee in advance, where circumstances permit.

It is true that the mere printing of a schedule of benefits gives many people the erroneous impression that the listed amounts constitute a fair charge for the services rendered. The Blue Shield certificate emphasizes in heavy print that this is not the case. Time and education are required to explain this to the public. It is here that the good will and cooperation of the profession are so essential in order that the people choose the voluntary rather than the compulsory, politically controlled type of health insurance.

Frederick W. Slobe, M. D.
Secretary

Editor's Note: The Illinois State Medical Society has approved all Blue Cross—Blue Shield plans operating in Illinois.

1950 POSTGRADUATE COURSES OFFERED BY C.M.S.

Physicians of Illinois who are contemplating postgraduate work during the coming year will be interested to know that the Chicago Medical Society will offer two courses from October 23rd through November 4th, 1950.

"Diseases of the Gastro-Intestinal Tract, Liver and Pancreas" will be presented during the week of October 23rd.

"Diseases of the Heart, Kidney and Blood Vessels" will be offered during the week of October 30th.

The courses will be given at Thorne Hall on Northwestern University Medical School Campus, Lake Shore Drive and Superior Street, Chicago. An outstanding faculty is being secured for each course. The tuition for each week is $50.00 and a physician may take one or both courses as he may desire. The courses are open to all physicians who are members of their county medical societies.

These short intensive refresher courses have been very popular with the physicians of Illinois as well as many other states. The subjects being covered this year are those requested by the majority of physicians attending the 1949 courses offered by the Chicago Medical Society. Here a physician can take advantage of the opinions of the leading men in the above fields, representing the great medical centers of the country, and because the registration is limited to one hundred, it is possible to personally discuss individual problems with them and also with the other registrants.

For information concerning these two 1950 courses, write the Committee on Postgraduate Medical Education, Chicago Medical Society, 30 North Michigan Avenue, Chicago 2. An application form will be sent you upon request.

ILLINOIS TUBERCULOSIS ASS'N SPRINGFIELD MEETING

The Illinois Tuberculosis Association will hold its 41st annual meeting, Monday and Tuesday, May 15 and 16 at the Abraham Lincoln Hotel, Springfield, Illinois.

Highlighting Monday's program will be the annual banquet at which Dr. J. A. Stocker, Springfield, will be tostmaster. Dr. Joseph B. Stocklen, Cleveland, Ohio will be the featured speaker of the evening. Dr. Stocklen's subject will be "The Role of the Clinic in Tuberculosis Control Programs."

Following the banquet, members of the Illinois Trudeau society will hold a conference on x-ray interpretation.

"Routine X-raying of General Hospital Admissions," will be the subject to Tuesday morning's session. Speakers will include Dr. Fred J. Hodges, University of Michigan; Dr. John E. Urbas, Danville; and Victor S. Linberg, hospital administrator, Springfield Memorial Hospital.

Tuesday afternoon's program will include "Follow-up on County-Wide X-ray Surveys," Dr. H. Vernon Madsen, Ottawa; "Non-Cooperative Patients," Dr. Dan Morse, Peoria; "Chest Surgery," Dr. John V. Thompson, Indiana; "Pneumoperitoneum," Dr. Benjamin L. Brock, chief, tuberculosis service, Downey Hospital, Downey, Illinois.

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ORIGINAL ARTICLES



Severe Anemia Secondary to Diaphragmatic Hiatus Hernia

A Report of Twenty Cases

Steven O. Schwartz, M.D.
Chicago

Improved methods of diagnosis and increased awareness of the frequency of diaphragmatic hiatus hernia have focused considerable attention on this condition during the past several years. Giffin[15] was able to collect only 650 proved cases from the literature in 1912 and of these but 15 were diagnosed during life. Pancoast and Boles[28] were able to find only 32 additional ones diagnosed during life prior to 1923. These figures contrast strikingly with more recent reports. Harrington[18] found that at the Mayo Clinic alone 600 cases of diaphragmatic hernia were diagnosed between 1926 and 1941. According to Murphy and Hay[25] the incidence of hiatus hernia in gastro-intestinal x-ray studies done by various authors has varied from 0.75% to 2.9%. Mendelsohn[23] found 16 cases in 1,000 consecutive gastro-intestinal studies for an incidence of 1.6%, while Schatzki[30] reported an incidence of 3.5% in 1,500 gastro-intestinal roentgen examinations.

The esophageal hiatus type is the most common form of diaphragmatic hernia. Of the 295 cases that Harrington[18] treated surgically, 223 were at the esophageal hiatus. The remainder occurred in the following order: left hemi-diaphragm 41, short esophagus type 14, hiatus pleura peritonealis 7, absent posterior fourth of the left diaphragm 5, foramen Morgagni 4, right hemidiaphragm 1. The stomach was the only organ involved in 231 of these cases, and participated with various other organs of the peritoneal cavity in an additional 55 cases, being involved in 286 out of 295 cases.

From the Hematology Laboratory and the Hektoen Institute for Medical Research of the Cook County Hospital, Chicago, Illinois.

Aided by a grant from the Wilson Laboratories, Chicago, Illinois.

Read before the General Assembly, Illinois State Medical Society, May 16, 1949.

Diaphragmatic hernia typically occurs in the short, stocky, middle-aged, multiparous female. The symptoms are so variable that the condition may masquerade as almost any disease of the upper abdomen or chest. Most common diagnostic errors in order of frequency, according to Harrington[18] were cholecystitis, cholelithiasis, gastric ulcers, duodenal ulcers, hyperacidity, secondary anemia, cardiac disease, cancer of the cardia, stricture of the esophagus, appendicitis, and intestinal obstruction. There are certain clinical manifestations however, which should enable the clinician to diagnose, or at least suspect, the presence of a hiatus hernia in some instances. The more common abdominal symptoms[1, 16, 19, 26] in order of frequency are epigastric pain, a feeling of distress during or after meals and associated with bloating, belching, heart burn, nausea, vomiting and regurgitation, night pain, or pain in the recumbent position. dysphagia and hiccough. Hiatus hernia has often been confused with anginal symptoms and coronary artery disease[11,12,20,21] because of the presence of sub-sternal pain with occasional radiation of the pain to the left arm.

Definitive diagnosis of diaphragmatic hernia is of course made on the basis of x-ray findings. The diagnosis of the larger hernias, with all or a good portion of the stomach in the thoracic cavity, is very easy roentgenologically. The smaller or reduceable hernias are likely to escape discovery unless the examiner is alert for clues that will stimulate careful study. Such clues, according to Harrington[17] are (1) displacement of the lower segment of the esophagus, (2) a tortuous, but not dilated terminal esophageal segment, (3) angulated segment, (4) undue retardation of the barium stream at the hiatus, (5) level of gastric contents above the esophageal aperture, (6) what apparently is high hour-glass contraction of the stomach with a visible niche at the site of constriction is, in fact, often a hernia of the stomach through the diaphragm with the ulcer merely a complication.

In spite of the increasing frequency with which hiatus hernia is recognized, sufficient emphasis has not been placed on its ability to produce a profound anemia.

There are many reports describing gastric ulcers in the herniated portion of the stomach. Bright[5] is credited with the first description in 1836. Carman and Fineman[6] in 1924 were probably the first roentgenologists to mention bleeding and anemia which occured in three of their 20 cases diagnosed by x-ray. Ohnell[27] in 1926 was the first to point out the correlation between hiatus hernia and bleeding. Boch,[3] in a discussion of one of the Cabot cases in 1929, emphasized the relationship between gastro-intestinal hemorrhage and hiatus hernia. He cited three cases in which occult blood was found in the stools and an anemia was present. The only abnormal roentgenologic findings were those of hiatus hernias. In 1933 Gardner[14] reviewed the English literature on anemia associated with hiatus hernia. He was able to collect 22 previously published cases including those reported by Segal[33], Mathews and MacFee[22], Weitzen[37], and Truesdale[35]. To these he added six unpublished cases making a total of 28. Of these 17 were females and 11 males. Nineteen patients were over 40 years old and 14 had demonstrable loss of blood Boch, Dulin and Brooke[4] in 1933 reported a series of ten patients. They emphasized the "silent" nature of this condition, the absence of physical signs, and the tendence to recurrent bleeding. In their series there were nine females and one male, their ages ranging from 51 to 79 years. Moersch[24] noted the presence of gastro-intestinal bleeding with weakness and evidence of anemia in 32 of the 246 patients with hiatus hernia encountered at the Mayo Clinic from 1932 to 1937. In this series there were 133 females and 113 males. The average age was 55, the youngest eight and the oldest 82. Cowan's[9] observations were based on 45 cases studied from 1930 to 1935 at Mount Sinai Hospital, New York. He had 13 cases in the "severe secondary anemia" group. His comments regarding these are pertinent. "In the anemia group the presenting symptoms are those usually associated with severe anemias such as weakness, anorexia, dyspnea and pallor. Very few if any gastric symptoms are in association with the anemia. The case histories of all these patients show the presence of a long standing secondary anemia with evidence of bleeding from the gastro-intestinal tract *not due* to ulcers, varices, or any other organic disease."

Murphy and Hay[25] in 1943 reported on 72 patients with hiatus hernia at the Peter Bent Brigham Hospital. There were 61 women and

11 men. The average age was 60, the youngest 33 and the oldest 78. Hemoglobin values were available for 67 of the patients and of these 23 had levels below 10 Gms.

Among other clinicians who have commented on the relationship of anemia to hiatus hernia are Schiro and Benjamin,[31] Sahler and Hampton,[29] Oler and Ritvo,[26] Weinberg,[36] Mendelsohn,[23] Dyke and Dyas, [10] Trueman, [34] and Andrews.[1]

Bleeding has even been observed in infants. Christiansen[8] in 1937 reported a case of hiatus hernia associated with hematemesis in a one year old child. Bergenfeldt[2] reported a case of hematemesis in an 18 month old boy in whom there was cessation of bleeding after repair of the hiatus hernia.

The anemia accompanying hiatus hernia is due to any or all of the following causes: 1. passive congestion, 2. ulcer, either due to varicosities resulting from passive congestion or a disturbed blood supply, 3. inflammations in the region of the wall of the visera incarcerated in the hiatus of the hernia. Boch et al.[4] demonstrated by operative and postmortem examination that in the great majority of their cases the cause of bleeding was due to simple congestion of the mucous membrane and some enlargement of the veins in the walls of the herniated portion of the stomach. The mucosa in the non-herniated portion appeared normal. Gastric ulcers occurring in the herniated portion of the stomach have been reported by Mathews and MacFee,[22] Truesdale,[35] Feldman,[13] and Harrington.[17] Harrington states that "the ulcer is due to trauma and is usually situated in the lower end of the esophagus close to its juncture with the stomach and it may be found in that portion of the stomach in the hernial sac near the lesser curvature. These traumatic ulcers result from the to and fro action of the stomach in the hernial ring when the hernia is small as well as from the forceful pressure exerted on the large distorted and congested stomach during the attacks of vomiting when the hernia is large. There is also the additional factor of regurgitation of gastric juices into the lower part of the esophagus which produces esophagitis . . . After repair of the hernia and replacement of the stomach into its normal position most of these traumatic ulcerations heal spontaneously." Commenting on the type of bleeding from these traumatic erosions he states that they may be severe and hematemesis or melena is often one of the chief signs. In other instances the patient may not be aware of any blood loss and yet have a very marked anemia resulting from occult bleeding. This type occurred in 11% of his series.

Chevallier and Danel[7] suggest that the anemia is caused by a torpid inflammatory process in the affected region of the gastric wall.

ILLUSTRATIVE CASE HISTORIES

Case 1.—Ann H. 71 year white female.

Main complaints: Dyspnea and dizziness for three weeks. Weight loss of 20 pounds in one year. Epigastric pain one hour after meals especially when eating cabbage, potatoes, beets, onions, coffee or butter. She ate her large meal at night and upon retiring vomited to relieve her pain. This had gone on for 15 years. No history of hematemesis or melena. Varicose veins and swelling of the legs for 30 years.

Physical examination: Obese. Blood pressure 140/75, pulse 88. Conjunctiva and mucous membranes pale. Tongue smooth and pale; teeth absent. Harsh systolic murmur over the precordium, most prominent over the apex. Few basal rales. There was a surgical scar and tenderness in the right upper quadrant. An easily reducible right inguinal hernia was present. There were marked varicosities of the leg veins with small weeping excoriations over both ankles. There was early "spooning" of the fingernails.

Diagnostic considerations on admission were: 1. Arteriosclerotic heart disease with minimal decompensation. 2. Possible gastric carcinoma with secondary anemia.

Laboratory data: Hgb. 25% (3.9 Gm.) RBC 2,45, WBC 3,800, polys 63, bands 8, eosinophils 2, basophils 2, lymphocytes 24, monocytes 9, anisocytosis ++, poikilocytosis ++, and polychromatophilia ±. On film the cells were microcytic and hypochromic. Stools: four examinations were negative and on one occasion the benzidine test was +++ while on a meat free diet. Urinalysis was negative except for ++ albumin on one occasion. Electrocardiogram: 1st degree A. V. Block and IV Block.

Chest films revealed a marked increase in the transverse diameter of the heart: Barium meal on one occasion was reported normal except for a "cascade stomach" from extrinsic pressure by a distended colon. Subsequently an outpouching was noted at the superiormost aspect of the stomach along the lesser curvature posteriorly, having the appearance of a large diverticulum. This showed an air-fluid level in the upright position. A collection of barium was seen within the outpouching suggesting a large ulcer. A subsequent x-ray study revealed a similar outpouching in addition to a small circular collection of barium in the supradiaphragmatic portion of the esophagus, suggestive of a small diaphragmatic hernia.

She improved clinically and hematologically on ferrotherapy and cardiac management. Surgical repair of the hernia was refused.

Case 2.—Lucille M. 53 year negro female.

Main complaints: Pain and swelling of the left leg, nausea and vomiting for a week, a sensation of fullness in the "stomach" after meals for one year, dyspnea and weakness on exertion, and ankle edema for two years.

Physical examination: Well developed and well nourished. Blood pressure 170/80, temperature 100°F., pulse 100, respirations 28. Heart enlarged to the left; a few basal rales heard over the lungs. ++ edema of the left leg, slight calf tenderness, and slightly positive Homan's sign.

Laboratory: RBC 3.30, Hgb. 34% (5.3 Gm.), WBC 10,500, neutrophiles 87, lymphocytes 6, monocytes 5, basophils 2, hypochromia +++, anisocytosis +++, polychromatophilia ++, poikilocytosis +. Stool: ++++ occult blood. Urinalysis and Kahn test negative.

The patient died ten days after entering the hospital.

Autopsy findings revealed:

1. Thromboplebitis of left popliteal vein.
2. Massive thrombotic emboli of the main pulmonary artery, right and left major branches.
3. Cardiac hypertrophy.
4. Diaphragmatic (hiatus) hernia of cardia. (It was later learned that this diagnosis had been made by gastro-intestinal x-ray studies during a previous admission.)

Case 3.—Bernice R. 48 year white female.

Main complaints: Epigastric pain of three or four weeks duration, occurring two or three hours after every meal and accompanied occasionally by sharp pain in the left chest. The pain sometimes lasted all day or occurred at night and was not relieved by antacids. During this period she experienced abdominal distension, nausea, eructations and nervousness. No history of food intolerance. There was a 20 pound weight gain in the preceding six months. She claimed that her skin was yellowish for six years and that she was weak for 12 years.

Two years previously she was hospitalized elsewhere and received one blood transfusion, liver injections and iron medication. One year before admission she was again hospitalized and received eight transfusions of blood and liver injections. No etiologic diagnosis was made on these occasions.

Physical examination: Obese, anemic, with a yellowish tint of the skin. She was depressed, cried easily and was apprehenesive. Blood pressure 140/88, pulse 92, weight 229 pounds. Hair white, tongue smooth, mucous membranes very pale. Soft apical blowing systolic murmur. Reflexes and vibration sensation intact. Proctoscopy: internal hemorrhoids with several bleeding points.

The admission diagnosis was pernicious anemia; rule out nutritional anemia.

Laboratory data: Hgb. 31% (4.8 Gm.), RBC 2.82, WBC 4,500, polys 57, lymphocytes 28, monocytes 12, eosinophils 3. The red blood cells were microcytic hypochromic and showed ++ anisocytosis. The marrow findings were interpreted as compatible with a chronic iron deficiency state. Stool examination gave a ++++ benzidine reaction; urinalysis was negative; basal metabolic rates were -18 and -12; gastric analysis revealed no free acid after histamine; blood chemistries were within normal limits. Chest x-ray showed transverse enlargement of the heart, the gallbladder was normal. Barium meal revealed a large hiatus hernia both on fluoroscopy and on the films. The remainder of the stomach and duodenum appeared normal. Barium enema was negative. Electrocardiogram was normal.

Hospital course: Patient was given ferrous sulfate during her stay. She was transferred to the surgical service for repair of the hiatal hernia and placed on reduction diet. She did not show sufficient weight loss and was very apprehensive of the contemplated surgery. She was finally discharged without the hernia being repaired.

Case 4.—Daniel M. 81 year white male. Main complaints: Cramping abdominal pain which occurred only when going to bed at night for a period of four months prior to admission. This recurred nightly. It started with pain in the left shoulder which subsided after half an hour only to be followed by severe cramping pain in the mid-abdomen which became dull and generalized after a while. The pain was relieved by turning to his left side, vomiting or by taking antacids. However, none of these measures gave relief for the ten days before admission. He had noted black stools for one month until two weeks prior to entering the hospital. Numbness of the legs and weakness were present for three to four months. There was a 24 pound weight loss in two months.

Physical examination: Well developed, well nourished, pale, not acutely ill. Blood pressure 185/80, pulse 78. Tongue smooth at the tip. There was an apical systolic murmur and slight tenderness in the right upper quadrant. Patellar reflexes and vibratory sensation were intact.

Impression: Diaphragmatic hernia; rule out gastric ulcer or carcinoma.

Laboratory: Hgb. 47% (7.3 Gm.), RBC 2.97, WBC 6,200, polys 84, lymphocytes 12, monocytes 4, anisocytosis ++, hypochromia +, poikilocytosis +, platelets adequate in number. Urinalysis negative. Benzidine test on the stool was negative on one examination and positive on another. Electrocardiogram normal; chest x-ray essentiallly negative. Barium meal revealed a diaphragmatic hernia of the stomach. The duodenal bulb appeared normal fluoroscopically. There were multiple diverticula of the sigmoid and ascending colon.

Hospital course: He had an episode of pain on the tenth hospital day accompanied by vomiting and several loose bowel movements. The pain was relieved by lying on his left side. He received ferrous sulfate and tincture belladonna while in the hospital and felt relatively well. He was discharged on the same regimen.

Case 5.—James D. 65 year white male.

Main complaints: Vague abdominal pain for two to three weeks, with several episodes of hematemesis during the week prior to admission. There was no relationship between the pain and vomiting and meals. He noted tarry stools on several occasions in recent months. Appetite was poor and he lost six pounds. He had been hiccoughing for two days.

He was a heavy drinker formerly, but in recent years drank whiskey and beer in moderation. A year prior to the present admission he complained of vague abdominal distress and dyspnea on exertion and was hospitalized for ten days. At that time he also complained of constipation, weakness and had a few tarry stools, but no hematemesis. Gastro-intestinal x-rays were not taken at that time.

Physical examination: Well developed, fairly well nourished. Acutely ill, pale, dyspneic, restless and hiccoughing. Blood pressure 130/80, temperature 98°, pulse 104, respirations 26. The mucous membranes were pale. The tongue was minimally smooth at the edges. There was pectoral alopecia. The heart was enlarged to the left and a systolic murmur was heard at the apex and aortic areas. There was an occasional extrasystole. Lung fields were clear. There were superficial abdominal veins. The liver was percussed four cm. below the costal margin and the spleen was enlarged to percussion, but not palpated. There were marked varicosities of the legs bilaterally.

Admitting room diagnosis was Laennec's cirrhosis with esophageal varices: degenerative heart disease.

Laboratory: Blood: Hgb. 43% (6.7 Gm.), RBC 3.36 million, WBC 13,800, polys 77 (bands 9), lymphocytes 12, monocytes 10, basophils 1, microcytosis, hypochromia, anisocytosis, poikilocytosis and polychromatophilia. Occasional targeting of the red blood cells and a rare nucleated red blood cell was seen. Stool was tarry and gave a ++++ reaction with the benzidine test. Urinalysis: albumin ++; NPN 88 on admission and 20 mgm% six days later. EKG was within normal limits except for an occasional extrasystole. Chest x-ray was essentially negative. Barium meal revealed no intrinsic pathology in the esophagus, stomach or duodenum fluoroscopically. On the films a pocket of barium was seen above the diaphragmatic leaf which was interpreted as a diaphragmatic hernia of the stomach. Esophageal varices could not be demonstrated. Barium enema was negative. Repeat barium meal with the patient in the Trendelenberg position with Valsalva procedure revealed a definite pouch at the fundic portion of the stomach above the diaphragm. Spot films corroborated the fluoroscopic findings and a definite roentgen diagnosis of diaphragmatic hernia was made. Gastroscopic examination revealed gastric mucosa well above the usual diaphragmatic level which was consistent with a diaphragmatic hernia.

Hospital course: On a regimen of milk and cream diet, antacids and sedation the vomiting ceased. He received ferrous sulfate and blood transfusions. A month after admission to the hospital a transthoracic repair of the diaphragmatic hernia was performed. He made an uneventful recovery.

DISCUSSION

The analysis of our cases merely re-emphasizes the presence of certain characteristic features

TABLE 1

No.	Name	Age	Sex	Lowest Known RBC	Lowest Known Hgb.	C.I.	Symptoms G.I.	Symptoms C.V.	Symptoms Other	X-Ray Findings
1.	Sophie F.	61	F	4.1	5.1 Gm. 33%	.40	+	+	+	Large cardioesophageal hiatus hernia.
2.	Harriet S.	53	F	3.2	6.4 Gm. 41%	.68	0	+	+	Large hiatus hernia with suspicious ulcer crater.
3.	Tillie J.	83	F	2.5	6.3 Gm. 40%	.80	0	+	+	Large hiatus hernia with a small diverticulum.
4.	Gertrude S.	77	F.	2.5	2.9 Gm. 19%	.38	0	+	+	Large diaphragmatic hernia.
5.	Lydia C.	77	F	2.1	4.4 Gm. 27%	.64	+	0	+	Diaphragmatic hernia with herniation of cardiac portion of stomach. Acute gastro-intestinal hemorrhage the presenting symptom.
6.	Clara V. B.	76	F	2.6	4.8 Gm. 31%	.60	0	+	+	Foreshortened esophagus with large hiatal hernia.
7.	Margaret D.	50+	F	2.2	3.7 Gm. 24%	.55	0	+	+	Diaphragmatic hernia.
8.	Dorothy M.	64	F	3.3	4.7 Gm. 30%	.45	+	+	+	Diaphragmatic hernia with normal esophagus entering the hernia posteriorly.
9.	Ben A.	41	M	3.2	5.3 Gm. 34%	.53	0	0	+	Diaphragmatic hernia with normal esophagus. Inconstant herniation of stomach into chest cavity.
10.	John W.	52	M	2.0	4.4 Gm. 28%	.70	+	0	+	Large para-esophageal diaphragmatic hernia.

TABLE 2

No.	Name	Age	Sex	Lowest Known RBC	Lowest Known Hgb.	C.I.	Symptoms G.I.	Symptoms C.V.	Symptoms Other	X-Ray Findings
11.	Walter S.	40	M	2.15	4.7 Gm. 30%	.69	+	+	0	Diaphragmatic hernia.
12.	Bernice R.	48	F	2.82	4.8 Gm. 31%	.55	+	0	+	Large hiatus hernia.
13.	Lucille M.	53	F	3.30	5.3 Gm. 34%	.51	+	+	+	Diaphragmatic hernia of cardia.
14.	James D.	65	M	3.36	6.7 Gm. 43%	.64	+	0	0	Small diaphragmatic hernia.
15.	Edward B.	66	M	1.68	2.2 Gm. 14%	.42	0	0	+	Diaphragmatic hernia.
16.	Sidney S.	69	M	2.50	6.5 Gm. 42%	.84	+	0	+	Diaphragmatic hernia.
17.	Anna H.	71	F	2.45	3.9 Gm. 25%	.51	+	+	+	Diaphragmatic hernia with large ulcer crater in herniated portion of stomach.
18.	James D.	72	M	2.79	3.9 Gm. 25%	.44	+	+	+	Large hiatus hernia involving cardia of stomach.
19.	Florence G.	72	F	2.40	6.7 Gm. 43%	.89	0	+	+	Small hiatus hernia.
20.	Daniel M.	81	M	2.97	7.3 Gm. 47%	.78	+	0	+	Diaphragmatic hernia.

associated with gastric hiatus hernia. It is known to be a condition most commonly found past middle age, predominantly in short, stocky, obese females. Our patients averaged about 63 years and with three exceptions were over 50. Twelve of the twenty were females. Their general appearance fitted well the accepted prototype.

Interesting in the histories was the paucity of gastro-intestinal symptoms. Twelve patients had complaints referable to the abdomen, but these were seldom marked. Cardiovascular symptoms were much more prominent, being present in all but eight patients. Their nature was variable and had its genesis partly in the anemia and partly in the degenerative changes present incidental to the advanced age. The other symptoms were divisible into those related to the hiatus hernia and consequent anemia and those simply coexisting. Among the former might be mentioned weakness, dryness of the hair, splitting of the nails and coldness and numbness, while among the latter were "nervousness," arthritic pains and selective dyspepsia.

Physical examination, excepting for the marked pallor and obesity, revealed nothing extraordinary. This absence of physical findings, the absence of evidences of weight loss, the absence of masses, tenderness or resistance in the abdomen became important clues in the recognition of the cases clinically in the last group of cases.

Our attention was focused on the remarkable anemia present in every instance, which indirectly was responsible for the patient consulting a physician and which in turn gave an early clue to the nature of the disability. In this connection the red blood cell count is of relatively little value, as we have pointed out previously,[32] except that it aids in the determination of the color index. The physiologic severity of the anemia is indicated by the hemoglobin level, which varied from 2.2 to 7.3 Gms. (14 to 47%). The fact that all these patients were ambulatory, indicating a gradual adjustment to the low hemoglobin, and that the color index in most cases was very low, signifies that the bleeding was of a duration long enough not only to have depleted the body's iron stores, but also to have dissipated a goodly portion of the circulating hemoglobin. In all instances where the color index was greater than 0.7 (except Case 3) recent acute blood loss, as manifested by tarry stools or hematemeses, complicated the chronic bleeding.

In only two cases was an ulcer crater seen. The bleeding is apparently quite irregular and unpredictable. The same patients, under what appeared to be the same conditions, showed anywhere from none to ++++ occult blood. Since

all patients were thoroughly studied for other gastro-intestinal bleeding lesions, none being found, and since most have been followed for a time sufficient to have revealed an early or small bleeding neoplasm, it may be assumed that the bleeding actually was from the herniated portion of the stomach. This is further borne out by the frequency with which blood was found in the gastric contents where this was examined. The response to iron therapy was gratifying as was expected since we were dealing with a relatively pure iron deficiency and since the rate of loss was far less than regenerative capacity.

SUMMARY

Twenty patients with diaphragmatic hiatus hernia were studied. Bleeding from the stomach in these cases resulted in severe iron-deficient anemias. There was a paucity of symptoms directing attention to the gastro-intestinal tract but cardio-vascular symptoms were quite prominent. Physical findings were negligible.

In a patient, especially a female past middle age, who presents an iron-deficient type of anemia without a history of bleeding, without localizing symptoms, and without physical findings of significance, a diaphragmatic hiatus hernia should be suspected and ruled out before other diagnoses are entertained.

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Connective Tissue and Disease

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Dr. Catchpole: Connective tissue is part of the extracellular environment. It is composed of the tissue fluid with its proteins, crystalloids, metabolites and gases, having a composition very similar to plasma, and of a submicroscopical nonfibrillar ground substance containing collagen, reticular, and elastic fibers and fibrils. We are to be primarily concerned with the ground substance which is a microscopically homogeneous mass pervaded by organized bundles. It is more closely related to the connective tissue cells which secrete it than to the tissue fluid which bathes it. In certain places this ground substance is condensed. This is particularly evident in the basement membrane commonly seen between the connective tissue proper and other layers of cells. The chemical composition of the ground substance is that of a glycoprotein which is more or less arbitrarily defined as a protein molecule containing at least four to five percent of carbohydrate. Such molecules are known as mucopolysaccharides and are an integral part of the ground substance. Glycoprotein may be stained with a variety of common stains. Hotchkiss has described a method which permits their selective staining. In his technique the ground substance is partially oxidized by periodic acid. Aldehydes form which give a pink color with leucofuchsin. A deep pink or reddish color distinguishes the dense basement membrane.

Ground substance can be studied by several methods (1) by histochemical methods such as the Hotchkiss stain, (2) through use of intravital stains, and (3) through chemical analysis of connective tissue.

In our studies we have noted a duality of behavior of the ground substance. It is traditional to conceive of ground substance as a supporting medium. It is considered to be chemically inert. In fact, ground substance under normal circumstances is water insoluble and not affected by most reagents. In disease, however, ground substance of the affected region undergoes characteristic changes: it assumes a less resistant, almost jelly-like consistency, and becomes to some extent water soluble.

Alterations in the character of the ground substance can be demonstrated by histochemical methods under various conditions. Animals show a considerable variation in the appearance of ground substance during various stages of maturation. This is particularly evident in the basement membrane and ground substance of the nephron during its embryological development. Changes in the character of the ground substance, often with actual disappearance of the basement membrane, follow injuries such as incision, infection, or inflammation produced by non-specific agents. Induced pulmonary edema, for instance, causes a marked alteration in the ground substance of the alveolar wall. Similar changes are found in the connective tissue surrounding transplanted tumors in mice. Other interesting examples of such alterations are the changes in the ground substance of various target organs after specific hormonal stimulation. Gonadotrophic hormones induce changes in the ground substance of the rat ovary. Hypophysectomy produces an alteration of the connective tissue of thyroids and testes of rats. Relaxin produces marked changes in the con-

nective tissue of the pubic symphysis of the guinea pig.

The changes in the ground substance which can be demonstrated are (1) variation in stainability using the Hotchkiss method, (2) alteration of its solubility which render it water extractable, (3) increased friability: the tissue grossly assumes a jelly-like appearance, and (4) an increased affinity for intravital dyes.

I would like to illustrate some of the changes by showing few cross sections of the symphysis pubis of guinea pigs under various conditions. The animals were injected with intravital dyes. The specimens which you see on the screen were obtained from normal animals within one week after estrogen administration, during pregnancy, and within six hours after injection of relaxin. It is evident that concentration of intravital dye does not occur in the connective tissue of the pubic symphyses of normal animals. On the other hand, the massive accumulation of dye after the exposure of the animal to the above specific stimuli is characteristic of increased solubility of the ground substance in this area as a result of hormonal stimulation. Changes are very prominent following relaxin and in late pregnancy.

How can one explain this ability of the ground substance to change from an inert to a reactive material? We have proposed the following theory: ground substance consists of polymerized glycoprotein. The process of polymerization is probably familiar to you from the chemistry of plastics such as celluloid which consists of small molecules polymerized into long chains. The degree of polymerization may vary in the same organ at different times and in different organs at the same time. How then is ground substance broken down? One must postulate the extistence of depolymerizing enzymes which can be activated by various stimuli. We believe that the ground substance itself is secreted by fibroblasts. Granules which produce the staining characteristic of ground substance are visible in fibroblasts and it appears probable that the initial polymerization occurs within the fibroblasts. Furthermore, we believe that depolymerizing enzymes are produced by the fibroblasts. Recent work has demonstrated the existence of such enzymes. Hyaluronidase, for instance, has been recovered from tumors. Hyaluronidase, however, is not the only enzyme of this type present in living systems. We have studied a group of enzymes which we have called for want of a better term "collagenases" although they probably should be called "ground substance-ases." They are found predominantly in regions of connective tissue breakdown. In recent experiments we have studied the amount of water soluble ground substance of normal connective tissue and of connective tissue surrounding transplanted fibrosarcomas of varying size and degree of malignancy in mice. This has been done by purification of the jelly-like material and extraction of its water soluble portion: the determination of carbohydrates in the extracted material permits an estimate of the extent to which the ground substance has become soluble. (Slide) It has been consistently found that the ground substance is more soluble in the region of the tumor than in normal connective tissue of the animal; similarly, animals with malignant tumors and marked connective tissue breakdown show an increase in circulating mucopolysaccharides of the serum. (Slide)

The literature of recent years has reported increased circulating glycoprotein in various illnesses including tuberculosis, sarcoidosis and carcinoma. We feel that this is due to the increased solubility of the ground substance in the vicinity of the specific lesion. Although many questions still remain unanswered, we hope that a better understanding of the behavior of ground substance will lead to a better understanding of pathological conditions associated with the breakdown of connective tissue.

Dr. Robert W. Keeton, Professor of Medicine: Are fibrillar structures the same as limiting membranes?

Dr. Catchpole: They stain similarly with the Hotchkiss technique and probably represent a further condensation or polymerization of ground substance, but for this, we have no direct evidence as yet. Ordinarily we consider the fibrils as lending the necessary strength to ground substance. However, the binding effect of ground substance is also necessary for the stability of the connective tissue. The connective tissue is like a bundle of matchsticks held together by a rubber band. When the band is removed there is no stability to the bundle.

Dr. Harry A. Waisman, Research Fellow in Pediatrics: Can the phenomenon of alteration of ground substance be related to the so-called collagen diseases? Do you have any evidence that an antigen-antibody reaction might result in such alteration and produce and consequently cause diseases, such as rheumatic fever, periarteritis nodosa, etc.?

Dr. Catchpole: That is an extremely large order. We do know that an antigen-antibody reaction in the lung will cause local changes in the ground substance. We doubt that it can cause depolymerization directly without an intervening enzymatic action. We must admit, however, that we are still quite in the dark about the actual mechanism of the changes which are produced by the various agents, including those which have been studied most intensively, namely, the chain of events initiated by hormonal stimuli.

Dr. Max Samter, Assistant Professor of Medicine: You have described the changes in the symphysis pubis of the guinea pig following the administration of relaxin. Does a similar hormonal system exist in the human? If so, what is its place in the hormonal regulation in pregnancy?

Dr. Catchpole: Relaxin is considered to be a product of the corpus luteum. The relaxation of the symphysis pubis of the guinea pig is regarded as a specific test for the hormone. I believe, however, that our method using intravital dyes constitutes a most satisfactory biological technique for its demonstration. Although the literature on the significance of relaxin for the human is limited, I suspect that neither the human symphysis pubis nor the other joints of the human would be immune to the action of the hormone.

Dr. Joseph G. Schoolman, Instructor in Otolaryngology: Do you believe that the organism ages because of the connective tissue change or does the connective tissue change because of age?

Dr. Catchpole: This question is quite philosophical. I do not believe that the organism ages because the connective tissue ages. Actually, the more notable changes in the rat occur in the early part of its life.

Dr. James P. Kiely, Assistant in Physiology: How is interstitial fluid related to the ground substance?

Dr. Catchpole: As a rule, we believe that they are two well-defined separate functional components. I do think, however, that the ground substance plays a greater part in the phenomena of capillary permeability than is generally allowed. It is obvious that depolymerization will increase the molecular population and thus alter the osmotic balance.

SURGICAL COMPLICATIONS

. . . In considering the immediate results of subtotal gastrectomy, some interest centers in the so-called "dumping syndrome." This has been present in mild form in about 10 per cent of our cases, and the symptoms have subsided as a rule within three months. Nausea, weakness, flushing, cold sweat, and palpitation comprise the symptomatology, and whether due to jejunal distention, duodenal reflux, or hypoglycemia the symptoms suggest autonomic mediation. There is some evidence that reducing the size of the gastrojejunal stoma lessons the frequency and severity of such symptoms, which is one reason we prefer the Hofmeister type of anastomosis. The recent work of Porter and Claman offers strong support for this impression. *Excerpt: Surgical Aspects of Gastric and Duodenal Ulcer, John D. Stewart, M.D., Harry W. Hale, Jr., M.D., and James E. Hix, M.D., Buffalo, N. Y., The Pennsylvania Medical Journal, February* 1950.

The Benevolence Fund
Its First Decade

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Misfortune may come to any of us and the best-laid plans for security in old age often go to pieces when investments turn bad or people live far beyond normal life expectancies. That is why programs like the Medical Benevolence Fund of the Illinois State Medical Society, providing as they do a non-governmental cushion against such disaster, are important.

The Medical Benevolence Fund of the Illinois State Medical Society was established in 1940, just 10 years ago, and the part the Woman's Auxiliary of the Illinois State Medical Society has played in maintaining it makes this occasion a fitting one at which to present a record of its first decade.

For many years previously, Dr. John S. Nagel, who gave long service to the Society as a councilor, had worked to persuade the Society to establish the fund. He had before him the example of the Pennsylvania State Medical Society, which had created its fund some 20 years before and by means of society contributions, individual donations, assessments and funds given by the Woman's Auxiliary, had placed it on endowment basis so that income from investments would take care of expenditures. Dr. Nagel spoke frequently before the Council and the House of Delegates of the Illinois Society on this subject. At one time he had even considered the possibility of establishing a home, but soon abandoned the idea as entirely unsuited to the basic purpose of the program. Finally his missionary work bore fruit in 1940, when the House of Delegates approved the establishment of the Medical Benevolence Fund and named a committee to plan and administer it, with Dr. Nagel as chairman. Sometime later the Council appropriated money to put the plan into operation.

At first the maximum benefit was set at $30 a month. This is not enough to make a beneficiary independent by any means, but, when added to private resources, it means the difference between enough and not-enough. However, the Society also recognized the need for greater sums in some cases and gave the Council authority to increase it by special action. Later, about three years ago, recognizing the inflationary trend of the time, the House of Delegates raised the maximum to $50, which likewise may be increased by the Council when necessary.

In its earliest phase, the Medical Benevolence Fund was financed by appropriations from the State Society's treasury. However, within a short time, the task of raising money for the fund was made one of the chief activities of the Woman's Auxiliary and its members ever since have done remarkably fine work in raising the much needed funds. From the annual reports of the presidents of the Auxiliary for 1941 to 1949, I have collected figures which indicate a total Auxiliary contribution of $11,184.15. This sum, together with the funds appropriated by the Society, was enough to keep the fund going through those years on a sort of year-to-year basis, but did not provide for the accumulation of a reserve or endowment. For a while after 1945, an attempt was made to build up a substantial endowment fund through contributions from the members, but this produced in two years only about $9,000. In 1948 however, the House of Delegates at its annual meeting amended the by-laws so that the sum of $5 per person per year was added to the bill sent to each member and the funds so collected were ordered to be set aside in a special account known as the Medical Benevolence Fund.

The 1949 collection, the first year after this decision was made, produced a material increase in the Medical Benevolence Fund, but the Woman's Auxiliary has continued its valuable effort to build up this fund to the point where it will be largely selfsustaining. From the standpoint of its human values and its effect as a cohesive force within organized medicine during this time of stress, this contribution of the Woman's Aux-

Abstract of Address before The Woman's Auxiliary of the Chicago Medical Society, Chicago, February 14, 1950.

iliary is probably the most valuable of its many worthy achievements.

Now what has been done with these funds? Over the ten-year period approximately sixty (60) beneficiaries have been aided for varying periods of time. The maximum number on the list at any one time was 25 (twenty-five). Several of the beneficiaries first accepted are still on the list, which now costs around $900 per month though it has been as high as $1,000. In the ten years, nearly $40,000 has been paid out. About 85 per cent of the beneficiaries are widows of former members of the Illinois State Medical Society. The remaining 15 per cent consists of physicians stricken with a long illness, such as tuberculosis or the infirmities of age, or those whose reserve funds have been exhausted.

Figures are ordinarily barren, but if you let your minds play for a moment on the stories behind them, I think you will appreciate vividly the significance of this fund. Here are some sixty (60) persons who might have been otherwise destitute, but have been kept from governmental charity in many cases by these relatively small benefits. None of the funds involved have represented any serious drain on the resources on those by whom they are ultimately contributed. But in each case the benefit paid has been of incalculable personal value.

No one but the three members of the committee responsible for the fund ever knows who the beneficiaries are. No names are ever mentioned or made public and the work of the committee is always secret. However, the concrete instance is always a better illustration and I would like to mention a few cases, so disguised as to preclude identification.

One night not long ago, a physician in southern Florida telephoned word that a former member of the Illinois State Medical Society, once quite prominent in the state but retired for many years, had been taken to the charity ward of a Florida hospital. He was well on toward 100 years of age and his illness was practically certain to be his last. The Florida physician had heard that Illinois had a Benevolence Fund and he ask if it were possible for the fund to provide financial assistance to ease the last hours of his patient. The approval of the committee was obtained by telephone and the necessary money en route within 24 hours. The old man was moved from the charity ward and installed in a private room. I am sure that the few additional comforts involved meant less to him than the realization that his old associates had not forgotten him and had rallied around when he needed help.

In another case, the widow of a once leading specialist in Illinois came to our attention. Her husband had died some thirty (30) years previously, leaving a fairly substantial estate which should have taken care of her last years. However, she had lived far beyond the normal expectancy to well past ninety (90) and her estate was exhausted. She was allowed the maximum benefit and for the three years until her death she frequently expressed her happiness in the knowledge that her husband's memory still protected her.

A similar case, the widow of a well-known specialist, who had had a large practice, found herself in difficulty because the investments on which she had depended to care for her had gone bad. The fund was able to care for her for some four years until her death.

Of a different type was the case of a young physician who had developed tuberculosis while an intern, but went on nevertheless to establish a practice and join his county medical society. One year later his disease became acute and he had to go to a sanatorium, leaving behind his wife and two small children. The fund took care of him and his family for the year he spent in the hospital and made it possible for him to be rehabilitated and return to his practice after the infection had been arrested.

In still another case a physician well over 80, retired because of arthritis, fractured his hip in a fall and of course needed long hospitalization. He was cared for until his death and his widow, who was likewise helpless because of paralysis, then received the benefit until she, too, died.

The last case I would like to mention is that of an elderly physician who three years ago sent a check for $50 to be placed in the Benevolence Fund with the explanation that in years to come he and his wife might need it and he thought he would be wise to build up some credit while he was still producing an income.

The history of the Benevolence Fund is one of achievement which emphasizes the importance of this program. It also emphasizes the willing-

ness of the medical profession to take care of its own members with its own funds in a sort of mutual insurance program which is exactly what we insist on in the national arena for the general public. The contribution of the Woman's Auxiliary has been one of the single greatest factors in the operation of the fund and I trust that the Auxiliary will never permit its interest to slacken in the years to come.

Practical Technics in the Establishment of a Local Health Unit

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Since the passage of the Searcy-Clabaugh Act by the General Assembly in 1943, attention has been focused upon the State of Illinois as a proving ground for a new concept of local health services, legally free of politics, supported by a direct annual tax levy for health purposes only, manned by a professional staff with qualifications approved by the State Department of Health, and managed by a non-political Board of Health of seven members, consisting of two physicians, one dentist, and four other members to be selected for their "special fitness". An important feature of the Searcy-Clabaugh Act is that County Health Units, once established, — whether by popular referendum vote, or by direct action of a County Board of Supervisors, — cannot legally be abolished, except by the same method by which they were established. This, it seems, is a very wise provision.

The Shelby-Effingham Bicounty Department of Health was established with the appointment of a Medical Director, on March 1, 1948, after having been approved by popular referendum vote in Effingham and Shelby Counties in 1946, and 1947 respectively.

PRACTICAL TECHNICS

Publicity: In our experience the first and most important step in establishing a new local health unit is to publicize the fact generally throughout the area, with repeated explanations as to the purposes and ultimate benefits to be derived.

This was accomplished by utlization of a list of daily and weekly news publications within the area, and borderline publications, including radio newscast coverage, and adopting a policy of sending out regular health news releases.

The health publicity program also included personal talks by the Health Officer and staff before professional, civic, parent-teacher and other citizen groups, with motion picture demonstrations when appropriate, and special talks from time to time by staff members in their own respective fields.

This was also supplemented by radio publicity. A tape recording apparatus was purchased and was found to be of material aid in the radio health program, especially when it was desirable to use members of advisory groups, to set up round table discussions.

Open House: Another effective method of promoting a new health unit is by means of "Open House" exhibitions in the Departmental headquarters or by health exhibits throughout the territory. In Shelby County exceptionally appropriate exhibit space was fortunately available in the newly established Health Center building at Shelbyville. An "Open House" for the Shelby County Unit was held on October 16 and 17, 1948, with a general attendance of 627 interested

Presented before the Annual Meeting of the American School Health Association, Oct. 27, 1949 in New York, N. Y.



Figure 1. Shelby County Health Center, Shelbyville, Illinois.



Figure 3. The insect control program. All cities and villages in the two counties were sprayed with D.D.T. during the summer of 1949.



Figure 2. Ruins of St. Anthony's hospital after fire of April 5, 1949.



Figure 4. A high school group at an "open house" at the Health Center.

persons. Likewise a rotating health exhibit was held in five towns of Effingham County, on November 29 to December 4, 1948, inclusive, with an attendance of 2,787 persons, making a total attendance of 3,408 for the two counties.

Problems of Employment: The shortage of professional personnel is still acute in Illinois, as in other areas, and this factor had to be dealt with in the initial establishment of the Unit.

As to nurses, the device used was newspress advertising in the neighboring cities where hospital nursing training schools are maintained; that is, in Springfield, Decatur, Champaign and St. Louis, augmented by a notice in the Journal of the American Public Health Association. This advertising campaign resulted in the employment of a complete nursing staff within about four months — consisting of a supervising nurse and five Public Health nurses within the two counties.

As to sanitary personnel, the same method was used — that is, by newspress advertising, and also an item in the American Journal of Public Health — with the result that among more than forty applicants, the two positions of sanitary officer were promptly filled.

The positions of office secretary and assistants were filled locally in each county.

In fact, as of October 1, 1948, six months after its inception, the staff of the Shelby-Effingham Bicounty Health Department was complete, with a Medical Director, a supervising nurse, five staff nurses, two sanitarians, and two secretaries, serving a total population of near 50,000.

Professional Relations: Problems of professional relations in the two County Medical Societies soon became apparent. The medical profession had in the past been examining school children and immunizing them in their private offices — a wasteful procedure compared with organized school clinics providing nursing aid, whereby the doctor can examine many more pupils and devote much more time to each child in the process.

In Effingham County the practice had been established by the Medical Society to charge a reduced fee to parents for the school child physical examinations and immunizations — to be paid directly to the secretary of the County Medical Society, and to be used in part for payment of expenses to outstanding speakers brought to the regular monthly meetings — thus contributing to a higher level of medical knowledge available to the community.

In Shelby County the Medical Society wished to keep the school physical examinations and immunizations in the hands of individual physicians, who also granted a reduced fee for the service. In both counties, the work of school physical examinations and immunizations had been reasonably well carried out, and it seemed proper, therefore, to allow both plans to continue, — with the provision that the Health Department would later establish a "follow-up" service to examine and immunize those school children not otherwise taken care of.

The Dental groups in the two counties have presented no professional problems, and have also given full support to the health program. The plan adopted is for physicians and nurses to note any tooth defects in the course of routine examinations, and refer them to local dentists for treatment. Also a dental x-ray survey has been given to all school children in the two counties.

The Citizens' Health Council: The state-wide Public Health Committee, established in 1942, has continuously sponsored voters' referendums in behalf of the creation of new local health units throughout Illinois, and is continuing to give full support to newly established county units in the state.

It would seem logical, therefore, that this group of interested, public-spirited citizens should be afforded an opportunity for continued participation in local health department affairs after a County Unit has been established. This seems obvious.

In both Shelby and Effingham Counties, Citizens' Health Councils were established, and have appointed important working committees on topics such as:

1) Membership
2) Public Relations
3) Health Exhibits
4) Maternal Health
5) Child Aid
6) Permanent Health Center quarters, through private contribution, legacies, and Federal Aid, — and
7) Promotion of co-operative youth recreation facilities within the area.

Public Relations: Under the Searcy-Clabaugh Act, the budget of a County Health Department in Illinois is presumed to be assured by reason of a direct tax levy that can be used only for health purposes. However, in practical experience it is still technically possible for a County Board of Supervisors to reject the annual tax levy recommended by a Board of Health. This rejection is of course subject to mandamus proceedings under State law, to enforce the Board of Health recommendation, but arbitrary action in these matters is usually undesirable.

Such a rejection was encountered in Effingham County against the recommended 1948 health tax levy, because of a misunderstanding on the part of certain members of the County Board of Supervisors. However, this misunderstanding was adjusted through the efforts of the Citizens' Health Council and the tax levy finally passed.

Finances: It is the policy of the Ilinois State Department of Public Health to grant subsidies to newly established local health units, in an amount sufficient to bring the local health budgets up to a minimum working level. This was found most helpful, and made it possible to equip the two local offices completely through state funds, before local tax funds became available — a fact which no doubt saved many arguments as to the need for the more expensive items, such as a motion picture projector and screen, a lantern slide projector, an audiometer apparatus for use in schools, a Woods ultra violet lamp, a flash bulb camera and a full quota of desks and files for the staff with lighting apparatus, etc.

Social Relations: It is likewise important that a Health Department and its staff use every means at hand to promote cooperative relationships with the civic groups, the men's clubs, the women's clubs, the Chambers of Commerce, the schools, the P.T.A. organizations, and the voluntary health agencies. These are always valuable adjuncts to a community health program.

Positive Health Accomplishment: In last analysis, the acceptence of a Public Health Unit by a community depends upon concrete accomplishment, — that is, upon a program which will reach the citizens personally, — such as nursing service to expectant mothers, an infant health program covering every newborn infant in the area, an effective school health program, adequate control of contagion, and lastly sanitary supervision of water supplies, milk sanitation, restaurant and tavern sanitation, garbage and waste disposal, and abatement of nuisances.

An instance in point is the emergency home

nursing childbirth service in Effingham County, set up immediately after the disastrous St. Anthony's Hospital fire of April 5, 1949, which suddenly deprived the population within a 50 to 100 mile radius of its accustomed childbirth hospital facilities.

This sudden lack of hospital facilities brought a challenge to the newly formed Bicounty Health Department, with the result that a new interim emergency home childbirth nursing service was established for Effingham County by means of a State-Federal grant-in-aid, pending completion of a larger and more modern hospital. It is available without cost to all physicians and expectant mothers.

This brought an unexpected increase in the Health Department staff, with five additional nurses devoted to the emergency maternal services alone, and several additional registered nurses on constant call as required.

The above incident brings us a new conception of what a well organized health department can do for a community in an emergency over and above the accepted routine services. It deserves much thoughtful consideration in planning the national health program of the future.

General Outlook in Illinois: From long experience in the public health field, may I venture the opinion that under the Searey-Clabaugh Act, the State of Illinois is now in public view, as in process of testing out a newly conceived method of providing adequate, financially independent, and locally autonomous health services to rural areas in this country. It has been called "The Illinois Experiment". Just now (January 1950) it is still in the experimental stage, — but let's all hope it will succeed according to our expectations based thus far upon local experience.

URGE CRACKDOWN OF EXCESSIVE FEES

The Board of Trustees of the American Medical Association issued a statement today urging county and state medical society grievance committees to crackdown on "the few members of the Association who charge excessive fees."

The statement, issued through the office of Dr. George F. Lull, secretary and general manager of the A.M.A., was signed by Dr. Louis H. Bauer, Hempstead, N. Y., chairman of the Board, and by the other eight Board members.

The statement said:

The House of Delegates at its Washington, D. C., meeting in December 1949 adopted a resolution which proposes the establishment of grievance committees by county and state medical societies. When this resolution was presented to the House, attention was drawn to the success of the committees already established in some states.

The Board of Trustees believes that the medical profession will be pleased to learn that at least eighteen medical societies now have grievance committees. These committees hear grievances concerning alleged improper practices or injustices. Frequently fees are involved.

The Principles of Medical Ethics state in part: "A physician is expected to uphold the dignity and honor of his vocation." Unfortunately, there have been reports of physicians' taking advantage of patients by charging exorbitant fees. Such reports, even though isolated, create an unfavorable impression of the entire medical profession. The establishment of grievance committees permits fair hearings for patients and physicians wherever the patient has been unable to adjust the matter satisfactorily with his physician. Sometimes a complaint is due to misunderstanding, perhaps because the physician neglected to explain to his patient the nature and cost of the services rendered. Such an explanation is especially indicated if unusual expenses are involved.

The Board of Trustees of the American Medical Association looks with disfavor on the few members of the Association who charge excessive fees. It urges state and county societies to discipline those members who, after a fair hearing and a decision that the fees charged have been excessive, refuse to reduce their fees to a level that is reasonable for the services rendered.

CASE RECORDS OF THE COOK COUNTY HOSPITAL

KARL MEYER, LEO M. ZIMMERMAN, DEPT. EDITORS

Arterial Gangrene of the Upper Extremities
Report of Two Cases

David Movitz, M.D.
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Chicago

Gangrene of the upper extremities in arterial disease is rather uncommon. We have recently observed two cases simultaneously, in two young men, both in their thirties, in whom gangrene of the fingers appeared almost as the initial manifestation of arterial insufficiency. While clinically similar, the etiology was different in the two cases.

Case 1.—C. Z., No. 49-70960, a white male, age 38, an electrician, was admitted to Cook County Hospital on December 30, 1949, complaining of gangrene of the tips of the right third and fourth fingers.

While eating breakfast on November 16 1949, he first experienced a tingling in the right third and fourth fingers and on the following day the distal phalanges of these fingers became cold and grayish. The coldness extended proximally to about the middle of the forearm. The tingling soon gave way to a steady ache in the fingers and hand. On the next day he visited his physician who found a four-plus glycosuria and administered diathermy to the hand for 15 minutes. He was immediately hospitalized on a medical ward of Cook County Hospital where his diabetes was readily controlled. Within a week, however, the distal phalanges of the right third and fourth fingers became black. Stellate ganglion blocks alleviated some of the pain, which was also relieved by keeping the hand in a dependent position. The coldness of the forearm and hand disappeared but numbness of the entire right hand was noticed. No further progression of the gangrene occurred. The patient was discharged December 23, 1949, and was readmitted on a surgical ward one week later.

He gave no history of exposure to cold, of trauma to the hand, of the use of drugs, or of excessive ingestion of rye bread. No coldness,

Associate in Surgery, Chicago Medical School.



Figure 1 — Case number one, gangrene of the fingers.

paresthesias, intermittent claudication or discoloration had occurred in any of the other extremities. In July, 1949, he began to tire easily, and in October, first noticed nocturia, polyuria, and polydipsia. From July to November he lost 22 pounds, but none since. His mother died in a coma of unknown cause at 64 years. There is no known familial incidence of diabetes mellitus or of other familial diseases.

Physical examination revealed a well developed, well nourished 38 year-old white male, in mild distress. Temperature was 98.6F.; pulse, 100 and regular; respirations, 24; blood pressure, left arm 120/86, right arm 118/80. The teeth were quite carious, and many were absent. Aside from the upper extremities no further pathologic physical findings were observed; the other extremities showed no discolorations, no trophic changes, were warm, and the various pulsations were easily palpable.

The right third and fourth fingers revealed a dry gangrene involving the terminal and part of the middle phalanges. (Figure 1) These fingers were diffusely swollen, and adjacent to the line of demarcation were moderately hyperemic. The right hand itself was also swollen, particularly on the dorsum. Profuse beads of sweat were present on the surface of this hand. The left hand was normal. The right hand, as contrasted to the unaffected left, showed marked dependent cyanotic rubor, and upon elevation a moderate to marked pallor. On palpation, neither radial nor ulnar pulse was palpable at the right wrist, but the brachial artery pulsated vigorously. Oscillometry revealed wide excursions in the right arm, but none below the elbow. On the left, wide oscillations (6 to 8 units) occurred from the arm down to the wrist. Skin surface temperatures, determined by an electric apparatus (Dermalor), were lower on the right (Table I), also, following release of tourniquet compression of the arm, the reactive hyperemia was marked on the left and only mild on the affected right side.

TABLE I

	Right		Left	
		Post-Scalenotomy		Control for Post-Scalenotomy
Fifth finger	33°C.	36.0°C.	38.0°C.	37.5°C.
Fourth finger	35°C.	35.7	37.9	37.6
Third finger	34°C.	35.6	37.6	36.5
Index finger	35.0	36.8	38.0	37.4
Thumb	35.0	36.0	38.0	36.9
Palm	36.6	37.2	38.0	37.5
Forearm	36.0	36.8	37.4	37.3

X-ray was negative for cervical rib, and there were no calcareous deposits in the vessels of the right forearm. The roentgen arteriogram with 35 and 70 percent diodrast injected into the right brachial artery revealed no filling of the ulnar or radial arteries, but the interosseus vessels in the forearm and also several vessels in the hand and fingers were visualized (Figure 2).

With the Adson vascular maneuver (extension of the neck, rotation of head to affected side, and deep inspiration, all of which shortens the scalenus anticus and narrows the posterior triangle), oscillations of the brachial artery became almost completely obliterated, and the pain and sweating were aggravated. This occurred bilaterally to the same degree. A stellate ganglion block on the right was followed by cessation of the pain



Figure 2 — Case number one, arteriogram showing obliteration of radial and ulnar arteries.

and of the profuse sweating for a period of two hours, and enabled the patient to lift his hand from its usual dependent position. Vasodilators (sympatholytic) such as Priscol and tetra-ethyl ammonium also alleviated the pain and sweating of the right hand and obviated the need to keep the hand in a dependent position. Plethysmographic oscillations did not occur following sympathetic block. Procaine injections to the anterior scalene muscle on the right resulted in a moderate relief of pain for four hours and the appearance of slight plethysmographic oscillations in the right forearm.

A biopsy of the left deltoid muscle revealed no pathology. No cold auto-agglutinins were found. Hemoglobin was 94%, the leucocytes were 8,500 per cu. mm. Urine analysis was negative except for an occasional glycosuria. The blood Wasserman was negative. During hospitalization the blood glucose levels ranged from 177 mgms. % to 100 mgms. %.

On February 3, 1950, a right anterior scalenotomy was performed under local anesthesia, without severing the sternomastoid muscle or visualizing the omohyoid muscle. The scalenus anticus appeared somewhat thickened, although a comparison with the opposite side could not be made. Following section of the muscle, the subclavian artery became quite visible in the depth of the wound. On palpation, the artery was soft, pliable, externally smooth, and it pulsated with moderate intensity. Following scalenotomy the right hand ceased to sweat, there was much less pain, and the patient was able to sleep or be up and about without keeping his right hand in a dependent position.

At the present time the gangrene is demarcating and patient is awaiting local amputations. The pain is reduced to a very slight stinging localized to the area immediately adjacent to the line of demarcation. The swelling of the hand has completely receded. The hand is maintained in normal positions, dependent position is no longer required for comfort. There is only occasional, slight sweating of the hand, usually limited to the two involved phalanges. There is a readily and constantly palpable radial pulse. The surface temperature is elevated (Table I), and the Adson test is negative on the right but still positive on the left.

This man apparently sustained an acute occlusion at the bifurcation of the right brachial artery. Diabetes mellitus may have played a role because of its predisposition to atheromatosis which in turn, predisposes to thrombus formation over the atheroma. An embolus from a thrombus formed at the site of compression of the subclavian artery may lodge at the brachial bifurcation. The lack of evidence of arteriosclerotic changes at the site of the exposed subclavian artery would tend to discount this mechanism of occlusion of the radial and ulnar arteries. On the other hand, there was evidence of excessive sympathetic stimulation which would lead to thrombus formation because of the resultant vasospasm and slowing of the blood stream. The profuse sweating was limited to the right hand and was simultaneous with the stinging pain in the same area, the probable result of sympathetic stimulation by compression of the scalenus anticus muscle upon the sympathetic fibers in the posterior triangle of the neck. The sweating and the stinging pain were both alleviated immediately following procaine block of the stellate ganglion. This also occurred with procaine injected into and limited

to the scalenus anticus muscle. Thus, this appears to again confirm the mechanism of thrombosis in the vessels of the forearm in scalenus anticus syndrome by an initial sympathetic vasospasm resulting from sympathetic nerve irritation from compression of the scalenus anticus muscle. The Adson vascular test for compression by the scalenus anticus muscle was present bilaterally before operation, but subsequent to sectioning of the right scalenus anticus became negative on the right side and so indicated release of compression of sympathetic fibers by cessation of sweating and a warmer hand.

Case 2.—C. D. No. 50445, a 33-year old white male was admitted to Cook County Hospital on January 3, 1950 with gangrenous finger tips of both hands, of two weeks' duration. For 17 years the patient has required moderate doses of insulin for diabetes mellitus.

Two months before admission he began experiencing numbness in the finger tips, which usually migrated from one finger to another. Within a week pain supervened. To ease the pain, both hands were kept dependent. This was soon followed by edema of the hands. Also, because he was unable to sleep in bed in a horizontal position for even a few minutes he developed edema of his ankles in addition.

No history of arterial insufficiency in any other extremity was elicited. No history of trauma, of exposure to cold, or application of phenol or of the use of a drug except for insulin could be elicited. He smokes one package of cigarettes daily. His occupation is a mechanical inspector. A system review was negative. Familial disease history is negative.

Physical examination revealed an asthenic, somewhat pale, white male appearing somewhat older than 33 years, with moderately painful hands. Pulse 96 and regular, respirations 20, blood pressure 108/70, temperature 98.2. Upper false dentures and carious lower teeth are present. A few small submaxillary nodes are palpable.

The *right* hand presents dry, black and gray gangrene of the greater part of the terminal phalanges of the index and middle fingers, and the *left* hand of the index, fourth, and little fingers (Figure 3.) The hands are quite warm, dry, and radial pulsations are readily palpable. No dependent rubor or pallor on elevation is noted. Plethysmographic oscillometry reveals three units oscillations in both of the forearms and arms. The Adson vascular test is bilaterally negative. Skin surface temperatures by electrical Wheatstone bridge device (Dermalor) indicates no substantial coolness and also measure the 1°C rise following bilateral stellate ganglion block. See Table II.



Figure 3 — Case number two, bilaterial gangrene of fingers.

The lower extremities reveal dryness, scaliness, and a thin skin. No palpable coolness is detected and no critical temperature level is discernible. Slight pallor on elevation and slight dependent rubor is noticed. The femoral pulsations are

TABLE II

	Right		Left	
	Preblock	Post-block	Preblock	Post-block
Thumb	36.0°C.	36.6°C.	35.4°C.	37.1°C.
Index	36.3	36.9	35.6	36.7
Middle	36.4	37.2	36.8	37.5
Fourth	37.2	38.0	35.2	36.0
Fifth	35.6	36.5	36.5	37.0
Palm	37.3	38.2	37.6	38.1
Forearm	36.6	37.2	36.8	37.0
Arm	36.6	37.9	36.7	37.0

bilaterally palpable. The popliteal is palpable only on the right. By plethysmographic oscillometry pulsations are detected as far down as the ankle on the right and only to the middle of the thigh on the left, with a maximum of one and a half units in each lower extremity. Peroneal muscle weakness is moderate.

Roentgenograms reveal distinctly outlined, calcareous, radial arteries bilaterally, extending into the hand. No cervical ribs are present.

Routine laboratory data: hemoglobin 70 percent; Rbc 3.9 million, per cu. mm.; leucocytes 14,500, with 76% neutrophiles, 4% eosinophiles, 19% lymphocytes, and 1% monocytes. A platelets smear indicated a general increased number (no count). Non-protein nitrogen 53 mgm.%, a/g ratio 4.6/2.3; total plasma proteins 6.9 grams %. Wasserman negative. Fasting blood levels varied from a high 534 mgm. percent on admission to a gradual decrease to 124 mgm%. The urine has frequently contained three to four plus reducing substance.

The course of the gangrene preceding and during hospitalization up to the present reveals no further progression. A process of self-amputation appears to be in progress, and sympathectomy is contemplated.

This is a case of gangrene in a young male affecting solely the upper extremities, coming only after a brief period of symptoms. Furthermore, this instance illustrates the oft made remark that *no* relationship necessarily exists between the sclerosis of relatively large vessels and the arterioles. The radial pulsation was readily discernible, but was probably not directly responsible for the gangrene. We may presume that the same calcareous and atheromatous process present in the arterioles, is primarily responsible for the gangrene.

SUMMARY

Thus, here are two patients, both young males, both with diabetes mellitus, and both presenting gangrene of the finger tips as the major and practically initial change secondary to arterial insufficiency. Diabetes was probably a major factor in the second case, and may have been a minor factor in the former. The first case is one of gangrene complicating a scalenus anticus syndrome. Only several such cases have been previously reported. The evidence for its mechanism as primarily due to sympathetic irritation is presented. The second instance is a bilateral gangrene due to a diffuse arteriosclerosis, involving the upper extremities more than the lower and to an extent great enough to cause gangrenous finger tips.

TREATMENT OF HERNIA

. . . The compensation and insurance groups, however, are partly responsible for another trend that is open to question. A physician who examines patients for an industrial organization looks for "potential" hernias as well as actual. Should he discover a hernia, it is to the advantage of the company as well as the patient that it be repaired before the employee is put on the payroll. Of this there is no question. However, when the same physician finds an external ring that is larger than usual, more often than not he recommends repair of the "potential" hernia. The patient often has had no symptoms of hernia, careful examination shows that he has none of the classical findings of hernia, and at operation no hernia is found, but following the operation the patient is eligible for employment. Certainly it is questionable whether he has benefited by the operation, and indeed, he may develop a "recurrent" hernia later that might not occur if the first operation had not been done. *Excerpt: Current Trends in the Treatment of Hernia, Frank Glenn, M.D., New York City, N. Y., The Ohio State Medical Journal, January,* 1950.

NEWS OF THE STATE



ADAMS

Grievance Committee Formed.—The Adams County Medical Society recently formed a public grievance committee designed to hear complaints from the public regarding relationships with the medical profession. Members of the committee are Dr. Walter Stevenson Sr., chairman, Dr. A. H. Bitter and Dr. James Henderson.

CARROLL

New Officers.—Dr. E. A. Flexman, Milledgeville, was recently chosen president of the Carroll County Medical Society. Dr. Ruth E. Church, Savanna, was elected secretary; Dr. G. E. Mershon, Mount Carroll, was named delegate and Dr. E. C. Turner, Savanna, alternate delegate to the Illinois State Medical Society.

CHAMPAIGN

Society News.—A symposium on poliomyelitis constituted the meeting of the Champaign County Medical Society recently with the following speakers: Drs. Max Appel, Donald Ross, James Walker and Leonard Schuman, director of the Division of Communicable Diseases, State Department of Public Health.

CLAY

Personal.—Dr William Charles Stahl has been named pathologist of the Clay County Hospital.

COOK

Personal.—Dr. Louis B. Newman, chief of the physical medicine and rehabilitation service, Veterans Administration Hospital, Hines, was guest speaker at a Rehabilitation Meeting sponsored by the Miriam Rosa Bry Rehabilitation Hospital, St. Louis, on January 16. Dr. Newman gave an illustrated lecture entitled "Rehabilitation of the Disabled."—Dr. Alexander Leschuck, Hebron, has been appointed medical director and education director for the Mercy Hospital free clinics which are affiliated with the Stritch School of Medicine of Loyola University.—Dr. Archibald L. Hoyne has resigned as medical superintendent of Municipal Contagious Disease Hospital and is no longer connected with the Chicago Health Department. He had been medical director of the hospital for more than thirty years. He will devote his time to teaching and limit his practice to consultations in acute infectious diseases.—Dr. Leona Brandes Yeager has been named director of the student health of the Northwestern University health service, succeeding Dr. Arnold Wagner, who resigned.—Dr. Morris Fishbein, formerly editor of the Journal of the American Medical Association, became consultant medical editor to Blakiston Company and Doubleday and Company, Inc.

New Dean at Loyola.—John J. Sheehan was recently named dean of the Stritch School of Medicine of Loyola University, succeeding Dr. James J. Smith, who resigned to devote further time to research work. Dr. Sheehan has been a member of the faculty of Stritch since 1937 serving as chairman of the pathology department for many years.

John Sheinin Named President.—Dr. John J. Sheinin, dean, Chicago Medical School, was elected president of the school at the board meeting, February 8. Dr. Sheinin, who has been dean of the school since 1935, has played a primary role in the building of the school academically, professionally, and economically, culminating in its full approval and accreditation by the American Medical Association and the Association of American Medical Colleges in 1948.

Society News.—Dr. Meyer A. Perlstein will conduct a cerebral palsy clinic in Jackson, Michigan, May 1-2 and in Lansing, May 3-4 as well as one in Battle Creek, May 16-17.—Dr. Walter J. Reich presented a paper on "Sterility" before the second annual convention of the American Academy of General Practice in St. Louis recently.—"The Acute Abdomen" was the title of a presentation by Dr. Philip Thorek before the 1950 Scientific Assembly of the American Academy of General Practice in St. Louis recently.

New Dean at Illinois—Dr. Stanley W. Olson, assistant director of the Mayo Foundation, Rochester, Minn., was appointed dean of the nation's largest medical school by the University of Illinois Board of Trustees recently.

Dr. Olson assumed his new position with rank of professor at the University's Chicago Professional Colleges Campus on April 1. He succeeded Dr. John B. Youmans, who has accepted the deanship of medicine at Vanderbilt University, Nashville, Tenn.

In addition to serving as dean of the College of Medicine, Dr. Olson will serve as medical director of the University's Research and Educational Hospitals.

Dr. Olson has been a member of the staff of the Mayo Foundation since 1946, when he was released from active duty by the Army. He has served as assistant director since October, 1947.

At 36, Dr. Olson will be the youngest physician to hold the deanship of medicine at the University of Illinois. He graduated from Wheaton College in 1934, and received the doctor of medicine degree four years later from the University of Illinois, ranking first in his class. He took his intern training at Cook County Hospital and his residency at the Municipal Contagious Disease Hospital, Chicago. Dr. Olson received the master of science degree at the University of Minnesota in 1943.

Activities at Chicago Medical School.—New appointments to the Chicago Medical School include the following:

Dr. John Horkavy, Dr. Arnold Black and Dr. Jennings Fershing have been named assistants in medicine; Dr. Irvin Seaman—Assistant in Obstetrics, Dr. Charles E. Shaivova—Assistant in Psychiatry and Dr. Adolph Nachman—Instructor in Pediatrics.

Dr. Harold Elishewitz has been appointed Assistant Professor of Parasitology. He holds degrees from Cornell, Harvard, and the University of Minnesota. Several years were spent in South and Central American countries in surveys of insects and insect carriers of diseases characteristic of the tropics. In addition to teaching and lecturing, he will engage in research work, including studies of tumors in insects, the development of malaria, and host-parasite relationships.

Dr. Harry F. Weisberg has been appointed a Research Associate in Pathology. He received his medical degree at the New York University College of Medicine. He was on the faculty of that university, of the College of the City of New York, and Michael Reese Hospital Postgraduate School. He is presently Chief Biochemist for the Mount Sinai Medical Research Foundation.

Illinois Physicians Honored.—Nine physicians were among 17 staff members honored at the 25th anniversary observance of the opening of the University of Illinois' Research and Educational Hospitals on Saturday, April 1.

The honored staff members, who have served continuously since April 1, 1925, were presented with keys by Dr. A. C. Ivy, vice-president of the University in charge of the Chicago Professional Colleges, at a dinner and reception at the Sheraton Hotel.

Doctors receiving keys were Hallard Beard, Carroll L. Birch, Edmund F. Foley, Willard Van Hazel, Francis L. Lederer, Francis E. Senear, Michael H. Streicher, Walter H. Theobald, and Leonard F. Weber.

Guest speaker for the evening was Dr. George D. Stoddard, president of the University. John E. Millizen, administrator of the hospitals, served as master of ceremonies.

Special Lectures.—The fourth Walter Wile Hamburger Memorial Lecture was delivered March 24 by Dr. Andre Cournand, associate professor of medicine, Columbia University College of Physicians and Surgeons, on "Some Aspects of the Pulmonary Circulation in Normal Man and in Chronic Cardio-Pulmonary Diseases." The ninth Edwin R. Kretschmer Memorial Lecture was delivered at the Palmer House, Friday evening, April 28, by Dr. Cyrus C. Sturgis, University Hospital, Ann Arbor.

Memorial Fund for Henry Boettcher.—A $12,000 medical scholarship fund in memory of the late Dr. Henry R. Boettcher, eminent Englewood surgical specialist, has been established at the University of Chicago School of Medicine, it was announced recently. The scholarship, the second established by the Boettcher family, was set up by Dr. Boettcher's children, Mrs. Allan Converse of Greenwich, Connecticut, and Henry F. Boettcher, chairman of the drama department of Carnegie Institute of Technology. In 1939 Dr. Boettcher contributed $7,500 to establish medical scholarships in memory of his wife, the late Olga Krohmer Boettcher.

Suburban District Sets Up Clinics.—Tuberculosis consultation and pneumothorax clinics are operating in six county towns under a cooperative program of the newly-organized Suburban Cook County Tuberculosis Sanitarium District and the county health department. The clinics, in Harvey, Chicago Heights, Berwyn, Melrose Park, Evergreen Park and Evanston, utilize joint office and hospital clinic facilities of the two organizations. Dr. Edward A. Piszczek, controller of the Sanitarium District, said that patients can be referred to the clinics by private

physicians or agencies for diagnosis, consultation and pneumothorax. A tuberculosis consultation clinic is scheduled every Monday at 10 a.m. at the Cook County health department's south district office, 15430 Park Avenue, Harvey. In addition, pneumothorax clinics are held at St. James Hospital, Chicago Heights, Mondays; McNeil Memorial Hospital, Berwyn, on Tuesdays; West Lake Hospital, Melrose Park, Wednesdays; Little Company of Mary Hospital, Evergreen Park, Thursdays, and St. Francis Hospital, Evanston, Fridays. The clinic hours are from 2 to 4 p.m. Dr. J. P. Schweitzer, assistant controller, is in charge of the clinics. Individuals wishing to attend the clinics are requested to write or telephone the Suburban Cook County Tuberculosis Sanitarium District office, 7401 West Madison, Forest Park.

Concerted Effort on Rheumatic Fever.—Chicago medical institutions have combined their resources for concentrated research on rheumatic fever and rheumatic heart disease, the No. 1 crippler of children.

The project was announced recently in a joint statement by Dr. George K. Fenn, president of the Chicago Heart Association, Dr. Hugh McCulloch, medical director of La Rabida Jackson Park Sanitarium, and Dr. Lowell T. Coggeshall, dean of the division of biological sciences at the University of Chicago. Funds to launch the project will be provided by the Chicago Heart Association. The research will command the combined clinical and laboratory facilities of La Rabida sanitarium and the University of Chicago. The medical staff at La Rabida, composed of specialists of the University of Illinois, Northwestern University, the Stritch School of Medicine at Loyola University and the University of Chicago, has appointed Dr. Albert Dorfman as research director of the joint program.

Dr. Dorfman is assistant professor of pediatrics at the University of Chicago. For several months he has been using the new Armour drug, ACTH, in rheumatic fever research at Bobs Roberts Memorial Hospital for Children at the University of Chicago. He discussed the effects of ACTH on rheumatic fever at a meeting of the clinical section of the Chicago Heart Association.

DU PAGE

Society Election.—Dr. N. F. Neckerman, Elmhurst, was recently chosen president of the Du Page County Medical Society. Dr. L. C. Clowes, Hinsdale, was named vice president and Dr. A. R. Rikli, Naperville, was reelected secretary-treasurer.

EDWARDS

Personal.—Dr. R. L. Moter, Albion, has resigned as coroner of Edwards County because of illness. His resignation ends his third consecutive term of coroner.

FULTON

Society Election.—Dr. A. C. Bagge, Avon, has been elected president of the Fulton County Medical Society. Other officers are Dr. Rod McGuire, Canton, vice president; Dr. O. M. Wood, Ipava, secretary-treasurer; and Dr. E. E. Davis, Avon, delegate to the Illinois State Medical Society.

HANCOCK

New Officers Elected.—Dr. B. I. Mueller, La Harpe, was elected president of the Hancock County Medical Society at a recent meeting in Carthage. Dr. E. E. Carlson, Carthage, was elected vice president and Dr. Blair Kelley, Ferris, secretary-treasurer.

JEFFERSON-HAMILTON

Staff Election.—Dr. C. O. Hamilton has been elected president of the medical staff of Good Samaritan Hospital. Other officers are Dr. J. A. Johnson, vice president and Dr. C. K. Wells, secretary-treasurer. At the meeting, physicians voted to contribute five hundred dollars from the staff fund to the new Good Samaritan Hospital making a total of twenty-seven thousand dollars donated by the physicians of Mount Vernon to the new hospital which is under construction.

Andy Hall Honored.—Dr. Andy Hall, Mount Vernon, recently named "The Outstanding General Practitioner of 1949" by the American Medical Association, was awarded the Veterans of Foreign Wars citizenship citation in February. The physician was given a plaque for his "outstanding contribution as a citizen of Mount Vernon and the United States" and a medal for his success as a "man of medicine and a soldier."

KNOX

Society News.—Dr. J. W. Dulin, Iowa City, discussed "The Treatment of Varicose Veins" before the Knox County Medical Society, at the Galesburg Club recently. The presentation emphasized the method of complete excision of the saphenous veins.

LAKE

Hospital Appointments.—Recent additions to the Highland Park Hospital include Dr. August F. Daro, Dr. E. William Immermann, Louis Scheman, Robert Henner and George I. Wendel.

Supplement Honors Medical Society.—The Waukegan News-Sun published a special edition, March 4, commemorating the fiftieth anniversary of the Lake County Medical Society and dedicated to fifty years of progress by the medical profession, hospitals and allied professions of the community. The forty-two page supplement in its content format is an excellent example of concentrated effort and personal general appeal. Three issues of HEALTH TALK, published by the Educational Committee of the Illinois State Medical Society, were used in this one issue.

LA SALLE

Eighty Years of Age.—Dr. A. N. McCord, who has been practicing in Streator for more than forty years, observed his eightieth birthday, February 22.

LIVINGSTON

Community Honors Physician.—Dr. George F. Blough was guest of honor at a public dinner given by the Odell Community Club recently. The occasion was a tribute to celebrate the physician's seventy-eighth birthday and was attended by Dr. Blough's fifteen children: John Phillip, Detroit; Rev. Fr. Edmond, Alexis; Mrs. Margaret Smith, Peoria; Mrs. S. N. Saletta, Chicago; Mrs. James Call, Alexis; Dr. Paul, Peoria; Dr. George Jr., Chicago; Mrs. Leo Finnegan, Peoria; Lawrence, Peoria; Joe, St. Louis; William, Davenport, Ia.; Mrs. Emma Verdun, Odell; Miss Rita, Peoria; Dave, Davenport, Ia.; and Richard, Alexis. It was the first time since 1941 that the whole family was present at one gathering. Clarence Gassensmith, as president of the Community Club, presented Dr. Blough with a bronze plaque commemorating his thirty-three years of practice in Odell and his seventy-eighth birthday. Another gift was a television set. Dr. Blough graduated at the University of Illinois College of Medicine in 1903. Two years later he launched practice in Camp Grove coming to Odell twelve years later. He is a former member of the Odell school board.

MC HENRY

Staff Election.—Dr. Thomas F. Forrest, Woodstock, was chosen president of the Woodstock Public Hospital, at a recent meeting succeeding Dr. Frank Harris, Richmond. Dr. William Nye, McHenry, was elected vice president and Dr. John R. Tambone, Woodstock, secretary-treasurer.

MADISON

Society News.—Dr. Leo Gottlieb, assistant professor of internal medicine, Washington University School of Medicine, St. Louis, addressed the Madison County Medical Society, March 2.—At a previous meeting of the society, Dr. Oscar Hampton Jr., clinical instructor of orthopedic surgery, Washington University School of Medicine, discussed "Internal Derangements of the Knee-Joint."

MERCER

Hospital Completed.—The fifty-bed Mercer County Hospital, Aledo, is the first hospital to be completed as a full project under the State's hospital construction program. The cost of the new hospital was approximately $1,000,000 of which the State of Illinois supplied $262,560 and the federal government $262,560. The balance was raised locally.

MONTGOMERY

New Officers.—Dr. E. H. Bastien, Nokomis, was named president-elect of the Montgomery County Medical Society at a recent meeting. Dr. J. R. Rebillot, Litchfield, was installed as president, succeeding Dr. Nelson K. Floreth, also of Litchfield. Dr. C. W. Draper, Hillsboro, was named secretary-treasurer.

MORGAN

Society News.—At a meeting of the Morgan County Medical Society, Jacksonville, recently, Dr. Sedgwick Mead, director of the department of physical medicine, Barnes Hospital, discussed "Physical Medicine in General Practice" and Miss Marjorie Bates, consultant of medical services from the Illinois Public Aid Commission spoke on activities of the Commission.

PIATT

Society Chooses Officers.—Dr. William Scott, Bement, was elected president of the Piatt County Medical Society at a recent meeting succeeding Dr. Stephen Kratz, Monticello. Dr. A. D. Furry, Monticello, was chosen vice president and Dr. Joseph Allman, Monticello, was reelected secretary-treasurer.

PIKE

Town Cooperates in Obtaining Physician.—The little town of New Canton publicly pledged a $3600 salary for the first year in an effort to obtain a physician. Plans are also underway to set up a modern office and attractive home for the new physician. All community groups are cooperating in the campaign.

PIKE-CALHOUN

Society News.—Dr. E. Harold Ennis, Springfield, discussed "Glandular Disorders in Women" before the Pike-Calhoun County Medical Society recently. —The Pike County Republican recently published a story on the activities of the fourteen members of the Pike-Calhoun County Medical Society. According to the report, six regular meetings were held. At least one of the fourteen members has presented a scientific paper before an outside society during the year. The fourteen members attended a total of forty-nine medical meetings outside the county and also served on at least nine various committees for the lay service clubs in their communities.

ROCK ISLAND

Society News.—Dr. Paul Greeley, Chicago, discussed "Reconstruction of Burn Contractures" before the Rock Island County Medical Society, March 14.

Personal.—Dr. S. C. Kaim, Milan, was recently elected president of the medical staff of St. Anthony's Hospital, Rock Island. He succeeds Dr. S. P. Durr, Rock Island. Other officers named were Dr. Eugene Moses, vice president and Dr. R. J. Belyea, secretary.

SANGAMON

Society News.—The Sangamon County Medical Society was recently addressed by Dr. George W. Holmes on "The Surgical Approach to Common

Pulmonary Diseases, Excluding Tuberculosis" and Dr. Le Roy H. Sloan, "Bedside Evaluation of the Etiology of Anemia."—Dr. Stuart Abel, associate professor of obstetrics and gynecology, Northwestern University Medical School, Chicago, recently addressed the Society on "Prolonged Labor."

Physician Honored.—Dr. James A. Day observed his sixtieth anniversary of his graduation in medicine, March 10. He practiced in Springfield from 1917 to 1940 when he retired. He has lived his entire life in Illinois and comes from a family of many physicians. Both his father, Dr. William C. Day, and his maternal grandfather, Dr. R. J. Allmond, practiced their profession for more than fifty years, and his brother, Dr. L. R. Day, and a number of other close relatives also practiced over a long period of years.

WARREN

Crippled Children's Clinic.—The Warren County Crippled Children's Clinic was held at the Monmouth Hospital, March 23, under the direction of Dr. Richard J. Bennet, Jr., Chicago, The clinic was sponsored by the Warren County Medical Society with the assistance of the Warren County Chapter of the National Foundation of Infantile Paralysis.

WAYNE

Staff Election.—Dr. Leslie W. Young was named president of the new Fairfield Memorial Hospital, Fairfield, recently, and Dr. Donald B. Frankel was named secretary.

WINNEBAGO

Society News.—Dr. Carroll Birch, Chicago, discussed "Tropical Disease" before the Winnebago County Medical Society, March 14.

GENERAL

Carl Fox Goes to Georgia.—Mr. Carl Fox, director of health education for the Illinois Tuberculosis Association since July 1948, has resigned to accept a similar position with the Georgia Tuberculosis Association, Atlanta, effective March 1.

Polio Program.—The institution of a state-wide system of secondary and primary polio referral centers is being considered by the Illinois Polio Planning Committee, it was announced recently.

This committee, composed of all major agencies dealing with the diagnosis and treatment of polio, is attempting to lay plans for the most effective possible care of polio patients well in advance of this year's polio season.

Under the proposed plan of referral centers, selected local hospitals throughout Illinois would be asked to provide facilities for all polio cases which develop in their vicinity. In areas where several hospitals are in operation, only one hospital would be designated as a secondary center in order to keep diagnostic and referral channels as simple as possible.

More serious cases could then be referred from the secondary centers to primary centers where more complete treatment facilities are available, if the committee's plan is accepted.

Dr. Roland R. Cross, State Director of Public Health and chairman of the committee, stated that this plan, if adopted, would provide more facilities and more professional guidance nearer the home of a polio patient. He pointed out that under the proposed plan, all agencies dealing with polio would be able to center their efforts in the designated hospitals.

Another proposal called for the inauguration of a community consultation service. This plan specifies that one or more private physicians in each locality would head up polio diagnosis and treatment after receiving specialized training from the various interested organizations.

The agencies which are represented in the Illinois Polio Planning Committee are the Illinois Department of Public Health, the Illinois State Medical Society, the American Red Cross, the Illinois Division of Services for Crippled Children, the Illinois State Nurses Association, the National Foundation for Infantile Paralysis, the Illinois Hospital Association, the Sister Elizabeth Kenny Foundation, and the Illinois division of the American Physical Therapy Association.

MARRIAGES

Blaine L. Ramsay to Mrs. Patricia Ann Viers, both of Chicago, January 10.

DEATHS

Jenny Herzmark Adler, Chicago, who graduated at Universität Zurich Medizinische Fakultät, Switzerland, in 1904, died January 25, aged 72, of coronary thrombosis.

August Frederick Bechtold, Belleville, who graduated at the University of Illinois College of Medicine in 1899, died suddenly in his home, February 28, aged 72. He was a member of the Illinois State Medical Society "Fifty Year Club."

George Nevin Beecher, Evanston, who graduated at Chicago College of Medicine and Surgery in 1910, died March 1, aged 61, in Columbus Hospital.

William Henry Bell, retired, Decatur, who graduated at Rush Medical College in 1893, died February 25, aged 78. He was a member of the Illinois State Medical Society "Fifty Year Club."

Joseph Brayshaw, retired, Homer, who graduated at University of Michigan Medical School in 1896, died in the Danville Veterans' Administration Hospital, January 17, aged 82.

Thomas A. Coyne, Assumption, who graduated at Loyola University School of Medicine in 1923, died in Huber Memorial Hospital, February 7, aged 73.

Edgar Wells Crass, Chicago, who graduated at Dearborn Medical College, Chicago, in 1906, died February 15, aged 75.

William Henry Durkee, retired, Fulton, who graduated at Keokuk Medical College in 1897, died in an East Moline Hospital, February 4, aged 82, after an illness of several years. He was a former president of Whiteside County Medical Society.

John Gillman Dwyer, Cullom, who graduated at Chicago College of Medicine and Surgery in 1913, died in Mercy Hospital, Urbana, February 11, aged 57. He was on the staff of St. James Hospital, Pontiac.

E. Vincent Hale, Anna, who graduated at Beaumont Hospital Medical College, St. Louis, in 1897, died February 17, aged 81. He was a member of the Illinois State Medical Society "Fifty Year Club."

Nils Hansson, Chicago, who graduated at Bennett Medical College, Chicago, in 1898, died in the Swedish Covenant Hospital January 4, aged 83, of arteriosclerosis.

Jenkins Hightower, Chicago, who graduated at Chicago Medical School in 1932, died in Michael Reese Hospital January 24, aged 57, of carcinoma of the pancreas.

Roy Ross Jamieson, Chicago, who graduated at Northwestern University Medical School in 1913, died in St. Luke's Hospital, February 24, aged 68. He was associate in medicine at Northwestern and chairman of the staff of Jackson Park Hospital.

Joseph Bostick Liston, Raymond, formerly of Carlinville, who graduated at University of Louisville School of Medicine in 1907 was killed instantly, March 2, when the automobile in which he was riding was struck by a freight train. He was 70 years of age.

Harry R. Lovellette, Keensburg, who graduated at Hospital College of Medicine, Louisville, Ky., in 1893, died February 28, aged 81.

John Gore Massie, Belleville, who graduated at Missouri Medical College, St. Louis, in 1898, died in St. Elizabeth's Hospital, February 10, aged 72.

Clara Bywater McCraken, retired, Belvidere, who graduated at Bennett College of Eclectic Medicine and Surgery in 1908, died in Highland Hospital, February 22, aged 85.

Clarence Wilbur Milligan, Springfield, who graduated at St. Louis University School of Medicine in 1908, died at St. John's Hospital, February 17, aged 65. He was superintendent of health in Springfield from 1931 to 1935.

Hazen Hooker Miner, retired, Chicago, who graduated at Harvey Medical College in 1897, died February 2, aged 82.

Roy Melloy Montfort, Danville, who graduated at Bennett College of Eclectic Medicine and Surgery in 1915, died in Lake View Hospital, February 21, aged 60.

Laurence Moses Moore, Benton, who graduated at the University of Illinois College of Medicine in 1930, died in the Moore Hospital, February 8, aged 47.

Paul Frederick Morf, Chicago, who graduated at Northwestern University Medical School in 1897, died March 4 in McMinnville, Ore., as the result of a fall. He was a member of the Illinois State Medical Society "Fifty Year Club."

John Joseph Nolan, Oak Park, who graduated at Northwestern University Medical School, died December 16, aged 71.

Frank J. Norton, Chicago, who graduated at Chicago Medical School in 1918, died in Alexian Brothers Hospital, March 5, aged 68.

Adrian August Plaut, Chicago, who graduated at Loyola University School of Medicine in 1925, died in Jackson Park Hospital, March 4, aged 61. He was formerly clinical instructor in surgery at Chicago Medical School.

Charles Rembe, Lincoln, formerly of Mascoutah and Fayettsville, who graduated at Missouri Medical College, St. Louis, in 1879, died January 21, aged 93.

Albert Jay Roberts, Ottawa, who graduated at Northwestern University Medical School in 1897, died February 25, aged 77. He was serving his third successive term as coroner of LaSalle County.

Harry J. Stewart, Oak Park, who graduated at the University of Illinois College of Medicine in 1897, died February 15, aged 75. He had practiced medicine in the suburb and Chicago's west side for more than 50 years. He was a principal founder of the Oak Park playground system and also a founder of the Aux Plaines Branch of the Chicago Medical Society.

William Dallas Walker, Ashley, who graduated at St. Louis University School of Medicine in 1937, died as the result of an automobile accident February 22. He was 38 years of age. He had served as a captain in the army in World War II and had practiced medicine in Ashley for 12 years.

Oscar G. Wernicke, Chicago, who graduated at Rush Medical College in 1889, died in Wesley Memorial Hospital February 23, aged 87. He was a member of the Illinois State Medical Society "Fifty Year Club."

Ralph H. Wheeler, Chicago, who graduated at Bennett College of Eclectic Medicine and Surgery in 1889, died in Winona, Minn., March 10, aged 86.

"FOR THE COMMON GOOD"

Televised Health Talk—Since the last issue of the Illinois Medical Journal, the following telecasts have been presented:

Chicago's Medical Tomorrow, February 22, with Walter H. Theobald, Mr. E. Todd Wheeler and George McLester. This telecast pointed to the leadership of Chicago as a medical center and emphasized the expansion of the West Side Medical Center.

Injuries Commonly Overlooked, February 28, George L. Apfelbach, Roland Lippold. Samuel J. Hoffman was moderator of this telecast, which included one method of applying a wrist cast and pointed to the differences of sprains, dislocations and fractures.

Undulant Fever, March 7, with George V. Byfield and Howard Shaughnessy, Ph.D., telling the story of this variable disease. Laboratory work was emphasized by Janet McCowan, bacteriologist of the Division of Laboratories of the Illinois Department of Public Health.

What is Neurology, March 14; Leo Kaplan, in this telecast, explained the differences between neurology and psychiatry, demonstrating various reflexes of the body.

Radio

In the series of radio transcriptions over WFJL, titled **Your Doctor Speaks,** the following physicians have participated:

Gilbert H. Marquardt, February 2, Why Bother About Health.

William J. Pickett, February 9, Surgical Trends in the Last Generation.

Charles I. Fisher, February 16, Is Your Blood Pressure Misbehaving?

Kenneth I. Roper, February 23, Eye Care in Adolescence.

Arnold I. Schimberg, March 2, Colitis.

George M. Cummins, March 9, Ulcers.

H. Kenneth Scatliff, March 16, Mental and Physical Fitness in the Home.

Robert S. Berghoff, March 23, Heart Disease After Middle Age.

Marc H. Hollender, March 30, Emotional Needs of Older People.

Morris Fishbein, April 6, Quacks and Quackery.

Lectures Arranged Through the Educational Committee:

Mr. Joseph McLary, chief psychologist, Peoria State Hospital, Kewanee Woman's Club, March 2, How is Your Child's Disposition?

Ralph Hamill, Chicago, Women's Progressive Club of Chicago, March 28, Growing Old Gracefully.

Mr. Oliver Field, Director, Bureau of Investigation, AMA, South Chicago Branch, Woman's Auxiliary, Chicago Medical Society, April 3, Quackery in Chicago.

Lawrence Breslow, Chicago, Home and School Guild, Immaculate Conception School, April 13, How to Keep our Children Healthy.

Mrs. Kris Peterson, administrative assistant, Public Relations Department, AMA, Englewood Branch, Woman's Auxiliary, Chicago Medical Society, April 14, Petticoat PR.

Harry M. Hedge, Chicago, Lafayette Elementary School in Chicago, April 17, on Medicine as a Career.

Arlington Ailes, La Salle, Tonica Woman's Club, Tonica, April 21, Superstitions about Health.

B. J. Canfield, Rockford, The Methodist Church in Oregon, April 23, Maximum in Life.

Paul L. Werner, Assistant Secretary, Council on Pharmacy and Chemistry, AMA, Ninth District, Illinois Federation of Women's Clubs, April 26, on Advances in Medicine.

Bertha Shafer, Chicago, Hubbard School PTA, May 9, narrator of film on "Human Growth."

Joseph O'Neill, Ottawa, Plumb School PTA in Streator, May 11, on Your Child's Health.

Lectures Arranged Through the Scientific Service Committees

Preston V. Dilts, Springfield, Effingham County Medical Society in Effingham, February 23, on Treatment of Coronary Disease.

Julius Jensen, St. Louis, Macoupin-Montgomery County Medical Societies, March 28, in Carlinville, on Pregnancy and Heart Disease.

Harry A. Gussin, Chicago, LaSalle County Medical Society in La Salle, April 13, on Proctology and the General Practitioner.

Lindon Seed, Chicago, Kankakee County Medical Society in Kankakee, April 18, on Thyroid Diseases from the Surgical Standpoint.

Harold C. Voris, Chicago, La Salle County Medical Society in La Salle, May 11, Importance of the Cerebro-Spinal Fluid Examination in Neurological Diagnosis.

James H. Hutton, Chicago, Henry County Medical Society in Kewanee, May 11, Nutrition and Obesity.

Edwin Irons, Chicago, Kankakee County Medical Society in Kankakee, May 16, on Common Virus Infections.

Wesley A. Gusfatson and Claude N. Lambert, both of Chicago, Will-Grundy County Medical

Society in Joliet, May 16, Low Back Pain from the Neurologist's and Orthopedic Point of View, respectively.

August Daro, Chicago, Iroquois County Medical Society in Watseka, May 16, on Management of Prolonged Labor.

Carlo Scuderi, Chicago, Logan County Medical Society in Lincoln, May 18, on Low Back Disability in General Practice—Its Etiology, Diagnosis and Treatment, illustrated.

Martin H. Seifert, Wilmette, Whiteside-Lee County Medical Societies, in Rock Falls, June 15, on Early Diagnosis of Poliomyelitis.

Conferences Arranged Through the Postgraduate Education Committee:

A postgraduate Conference was arranged for the **Second Councilor District** at the Kaskaskia Hotel, La Salle, March 23, covering the counties of Bureau, La Salle, Lee, Livingston, Marshall, Putnam, Whiteside and Woodford, and with Joseph T. O'Neill, Ottawa, Council, presiding. Speakers were John A. Mart, instructor in medicine, Northwestern University Medical School, Coronary Disease.

Irwin S. Nieman, professor and head of the department of microbiology and public health, The Chicago Medical School, The Newer Antibiotics.

Robert E. Cummings, assistant clinical professor of pediatrics, Stritch School of Medicine of Loyola University, Differential Diagnosis of Abdominal Pain in Children, illustrated.

Meyer Solomon, senior attending neurologist and psychiatrist, Mount Sinai Hospital, Psychosomatic Medicine and the General Practitioner: Present Status and Practical Applications.

A roundtable concluded the afternoon's program. The dinner speaker was Walter Stevenson, Quincy, President, Illinois State Medical Society on "Cataracts" and "Some Remarks as President."

The Postgraduate Conference for the **First Councilor District**, embracing the counties of Boone, Carroll, DeKalb, Jo Daviess, Kane, Lake, McHenry, Ogle, Stephenson and Winnebago, was held at the Leland Hotel, Aurora, March 29, with Douglas C. Hurley, Elgin, presiding as president of the Kane County Medical Society. This program was an "all Illinois program", all participants being members of the University of Illinois College of Medicine:

Max Sadove, assistant professor and head of the division of anesthesiology, Modern Anesthesiology.

Max M. Montgomery, assistant professor of medicine, Current Therapy of Rheumatoid Arthritis.

Beulah Bosselman, associate professor of psychiatry, Role of Psychiatry in Modern Medicine.

Frederick H. Falls, professor and head of the department of obstetrics and gynecology, Breech Presentation.

A round table concluded the afternoon session. The evening speaker was Philip Thorek, assistant professor of surgery, on "The Acute Abdomen."

The Postgraduate Conference for the **Eleventh Councilor District,** encompassing the counties of Du Page, Ford, Grundy, Iroquois, Kankakee, Kendall and Will, was held at the Louis Joliet Hotel, Wednesday, April 5, with Theodore Z. Polley, Joliet, president of the Will-Grundy County Medical Society, presiding. A luncheon, with the county medical society acting host, opened the session which included the following speakers:

John L. Reichert, associate in pediatrics, Northwestern University Medical School, Pediatric Emergencies — Indications for Treatment, illustrated.

John Martin, associate professor of surgery at Northwestern, Indications for Treatment — Cranio-Cerebral Emergencies, illustrated.

N. C. Gilbert, professor and head of the department of medicine, emeritus, at Northwestern, Cardiovascular Emergencies — Indications for Treatment.

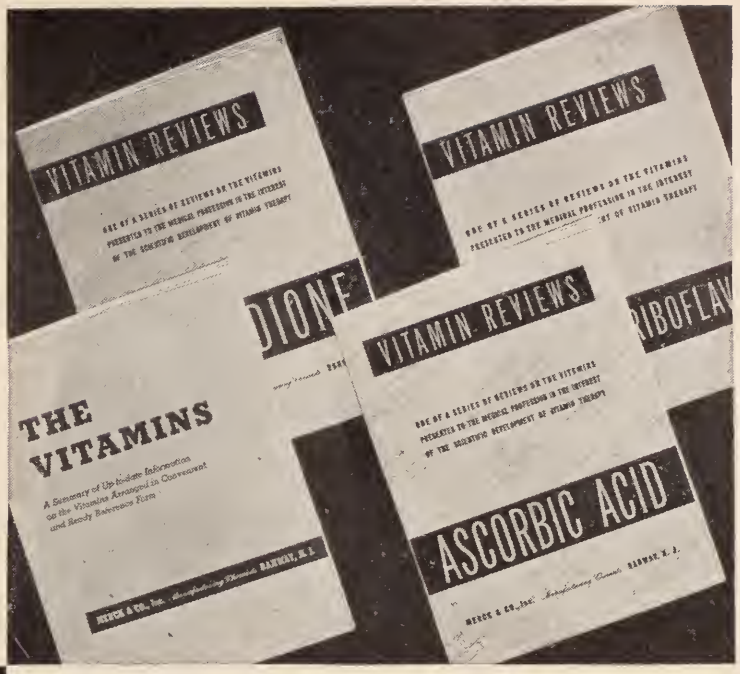
Howard J. Shaughnessy, Ph.D., chief of the division of laboratories, Illinois Department of Public Health, Laboratory Diagnosis of Virus Diseases.

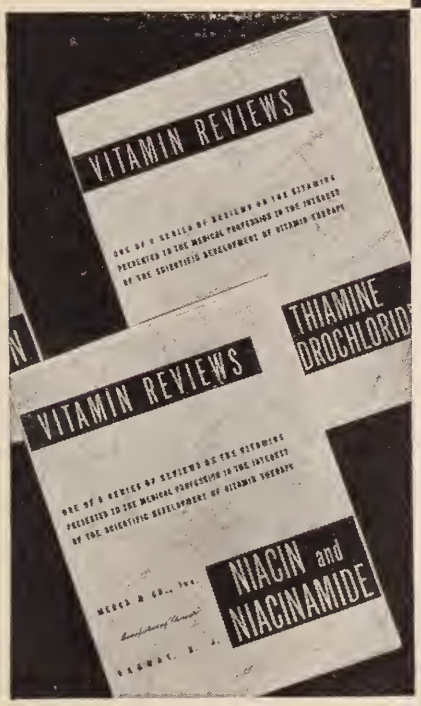
Charles D. Krause, instructor in obstetrics and gynecology, University of Illinois College of Medicine, Obstetrical Emergencies — Indications for Treatment, illustrated.

The afternoon program ended with a roundtable discussion. At the dinner session, Dr. Ben Lichtenstein, associate professor of neurology, University of Illinois College of Medicine, discussed "Epilepsy — Diagnosis and Treatment," and Mr. Ben H. Gray, National Director, National Epilepsy League, Chicago, "The National Epilepsy League Goes to Work."

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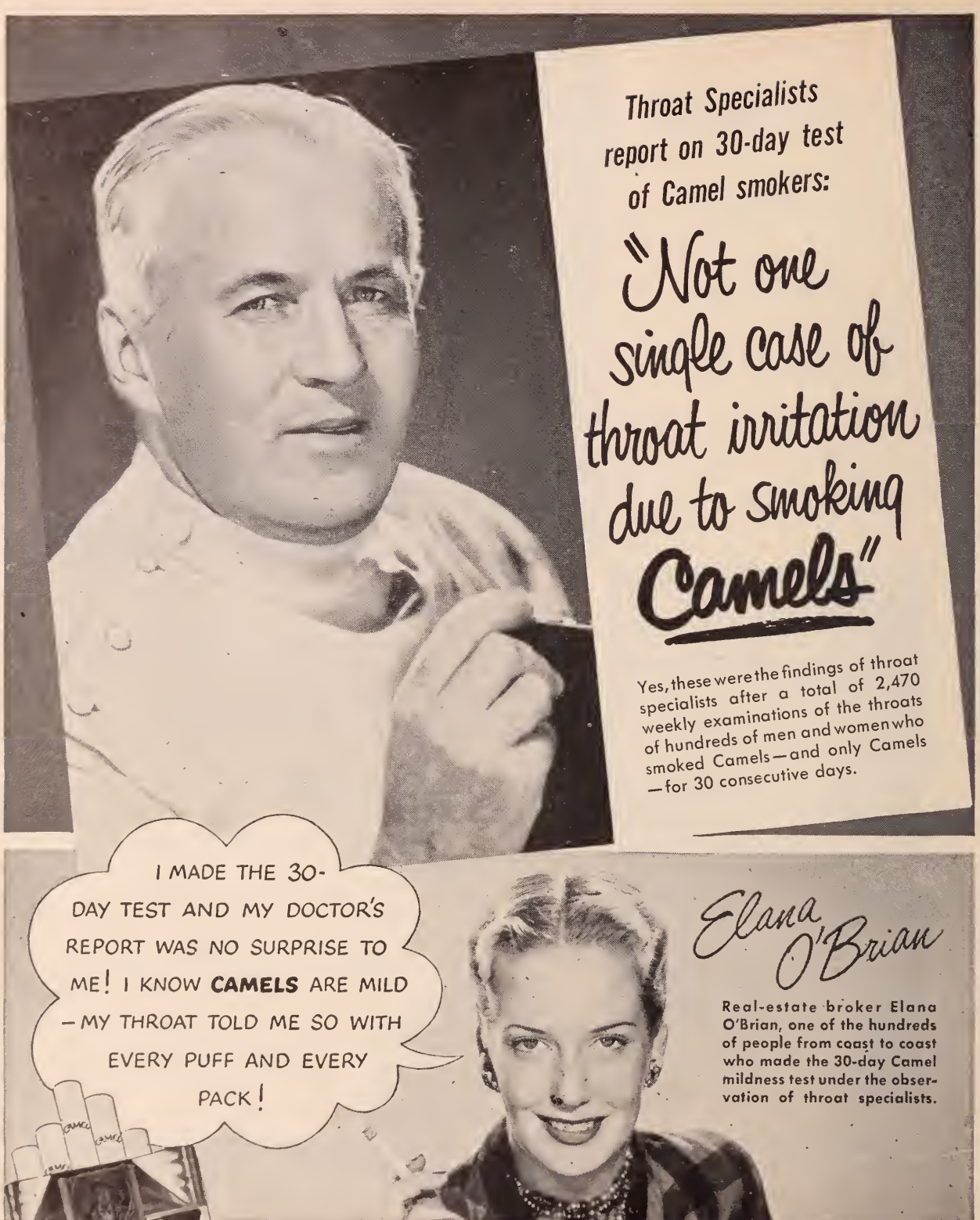
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REFERENCES: 1. Coller, F. A. and DeWeese, M. S.: Preoperative and Postoperative Care, J.A.M.A., 141:641, 1949. 2. Jolliffe, N. and Smith, J. J.: Med. Clin. North America, 27:567, 1943. 3. Kruse, H. D.: Proc. Conf. Convalescent Care, New York Acad. Med., 1940. 4. Spies, T. D.: Med. Clin. North America, 27:273, 1943.

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*Rehfuss, M. E., Albrecht, F. K., and Price, A. H.: A Course in Practical Therapeutics, Baltimore, The Williams & Wilkins Co., 1948, p. 371.

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PHYSICAL MEDICINE ABSTRACTS



FACIAL PALSY AND POLIOMYELITIS

Thomas Stapleton, M.A., B.M., Oxfd., M.R.C.P., D.C.H., in THE LANCET, CCLVII:6577:510, September, 1949.

The Aetiology of the facial palsy of lower-motor-neurone type sometimes known as Bell's palsy, is obscure. Local chilling has been regarded as a contributor factor, and an association with the virus of herpes zoster has occasionally been noted. Usually, however, no satisfactory explanation is found.

Walshe (1947) has drawn attention to the seasonal incidence, cases tending to occur in groups in the late autumn and early spring.

The possibility of an association between isolated facial palsy and poliomyelitis has been considered previously (Lavergne, et al. 1932, Kissel 1948, Wyllie 1944) Lavergne et al (1932) were able to find records of over 80 cases of isolated facial palsy which had been attributed to this infection.

The observers in Malta (Agius et al. 1945) attributed their cases of isolated facial palsy to poliomyelitis (1) because of the absence of other causes, (2) because of the presence of the same kind of general disturbance, and (3) because of their occurrence during an epidemic period. The first of these criteria applies to all the cases of isolated facial palsy in the present series, and the last applies to 7 of the 8 cases. Only 4 of the 8 had any associated malaise.

Though there is a suggestion that the cases of facial palsy unaccompanied by other paralysis had a cause in common with the cases of poliomyelitis, this hypothesis is not, of course, proven. The numbers were small; the cases of facial palsy seen in the outpatient department may not have been a true reflection of the incidence; the notification figures of poliomyelitis, in view of the difficulties in diagnosis, only give an indication of the time of the epidemic; and the concurrence of the outbreaks was only observed during the one year.

REHABILITATION IN SMALL COMMUNITIES

Shelby Gamble, M.D. Ohio State Medical Journal, 45:9:893, September, 1949, p. 893.

Rehabilitation, medically speaking, is a word that has great variance of meaning. Depending upon the degree of handicap present, it may range from a maximum of complete restoration to a minimum of enabling the individual to be partially independent so far as his daily needs are concerned. Even the attainment of self-sufficiency in toilet habits may help surprisingly in the economic problems of the partient's family, thus freeing another member of that family for gainful employment and eliminating or reducing the need for financial assistance with its resultant drain on family or community. I believe that Dr. Donald A. Covalt of New York City has

(*Continued on page* 44)

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summed up the over-all picture in rehabilitation competently when he states, "The purpose is to teach the disabled patient to live within the limits of his disability, but to the hilt of his capability."

PHYSICAL THERAPY

In small communities, this overall plan should start at the local hospital, making use of a department of physical therapy. Although the department may be small and initially require only the part-time services of a physical therapist, a great deal could be done in preventing deformity, preserving and restoring muscle and joint motion, aiding in ambulation, and maintaining the best possible general condition of the patient.

OCCUPATIONAL THERAPY

The next step in further development on a local hospital plan would be a department of occupational therapy. Occupational therapy may be used by itself or as a supplement to physical therapy, as it is a treatment based on activities. A definite program may be provided in which some mental or physical activity is scientifically supervised by trained technicians for a specific purpose. Occupational therapy may be indicated for improving or maintaining morale; it may be entirely diversional, educational or recreational, or functional in the sense of restoring articular and muscular coordination, building up strength and physical endurance; it may be prevocational in the sense of being planned to reinstate the patient in his former job or to prepare him for new vocational training.

No one can outline a definite program that will fit all communities; this is an individual problem for each concerned.

PROGRESS WITH A NEW PLAN FOR POLIO CARE

A national conference sets down its recommendations for comprehensive hospital care. This report is designed to answer many of the urgent questions about polio and how it best may be treated. Hospitals, 23:9:39, September, 1949, p. 39.

The seriousness of the poliomyelitis epidemic,

(*Continued on page* 46)

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Physical Medicine (Continued)

now reaching the expected season's peak, is mitigated partly this year by these factors: More hospitals accept polio cases; more early and mild cases are being reported; better trained phyicians, nurses, physical therapists and other professional workers are available and as a result, more persons are being discharged from hospitals completely recovered.

Improved practices for the control of poliomyelitis are being followed by health officers, hospitals, physicians and others. These account for much of the new optimism. Recommendations for the improved practices were formulated by a national conference sponsored by the National Foundation for Infantile Paralysis last June and they are endorsed by the executive committee of the Association of State and Territorial Health Officers.

In studying the major problems relating to the control of poliomyelitis, the conference members found four that are especially serious and from them formulated the new recommendations. The four problems are:

1. Confusion resulting from great variation in state and local practices for the control of poliomyelitis, especially those concerning isolation and quarantine.

2. Desirability of standardization based on known scientific and epidemiological facts to promote uniform control measures.

3. Need for a national body of qualified opinion to guide and support state and local health authorities in effecting desirable modifications or changes in sanitary codes and practices for control.

4. Many existing regulations require practices which not only are ineffective in the control of poliomyelitis and unwarranted by facts but also which create problems for patients and families, health officers, doctors and hospitals. A special hospital problem, for example, centers on requirements for unnecessarily long periods of isolation. Such practice creates a bottleneck by limiting capacity when the patient could be discharged earlier to home or convalescent centers. This creates barriers to most effective treatment parti-

(*Continued on page* 48)

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[1]Kraemer, M.: Postgrad. Med. 2:431 (Dec.) 1947.
[2]Kraemer, M., and Siegel, L. H.: Arch. Surg. 56:318 (Mar.) 1948.
[3]Martin, G. J., and Wilkinson, J.: Gastroenterology 6:315 (Apr.) 1946.

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cularly needed in the early stage of the disease, is unfair and harmful to the patient and family and increases operational and personnel costs to the hospital, patient and agencies paying for care.

Enforcement of unwarranted quarantine regulations may create fear and hysteria, waste the time and efforts of professional personnel and facilities and produce needless economic and social hardships for the patient and family.

REFLEX VASODILATATION BY BODY HEATING IN DIAGNOSIS OF PERIPHERAL VASCULAR DISORDERS —

A Criticism of Methods

R. H. Goetz, M.D., Ch.B. and F. Ames, M.B., Ch.B., Capetown, Union of South Africa — Archives of Internal Medicine, 84:3:396, September, 1949.

SUMMARY AND CONCLUSIONS

1. Immersion of one upper extremity or of both feet in water of 45°C. for thirty minutes, with prevention of the dissipation of heat from the body, normally results in reflex dilation in the other extremities.

2. The reflex vasodilatation is obtained in the upper extremities by immersion of the feet in the case of patients with high transverse spinal lesions (involving the sixth thoracic segment).

3. Vasodilatation is not obtained when the circulation through the immersed extremtiy is interrupted. Therefore, reflex vasodilatation is dependent on the return of heated blood, which acts on the thermosensitive center in the hypothalamus, and the mechanism of reflex vasodilatation from body heating is not nervous in origin.

4. The pressure required for occlusion of the arterial circulation of the lower limbs by means of a cuff fixed on the thigh is considerably higher than that required for occlusion of the circulation to the hand with a cuff above the elbow. It is therefore confirmed that the "blood pressure" in the lower limbs is higher than in the upper.

The method of measuring the blood pressure objectively and, if necessary, in two limbs simultanously, with the digital plethysmograph, is described.

5. The higher "blood pressure" in the lower

(*Continued on page* 50)



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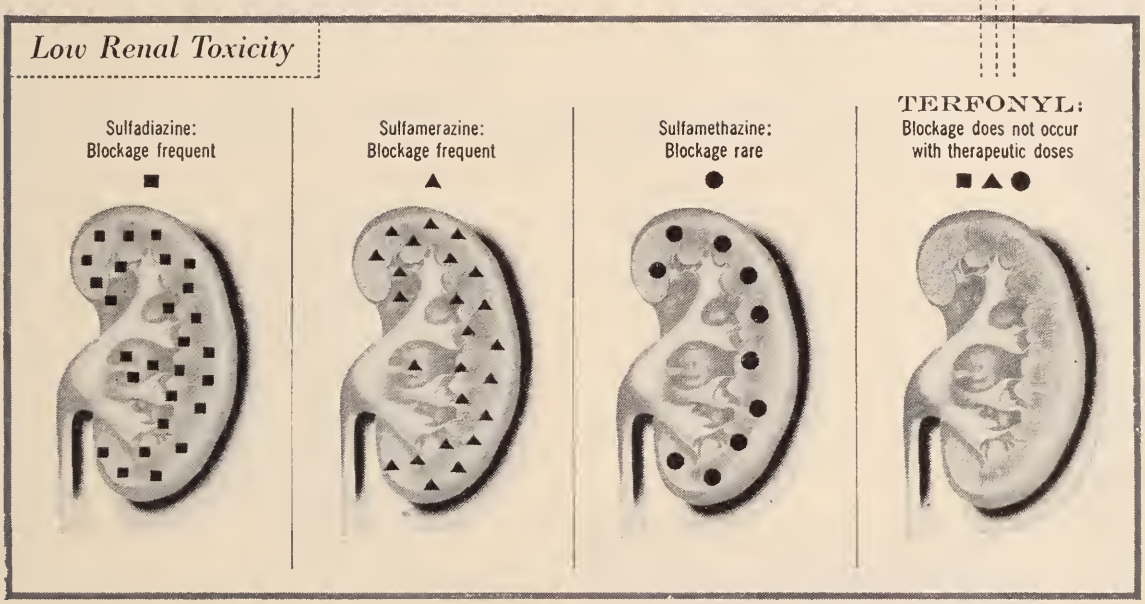
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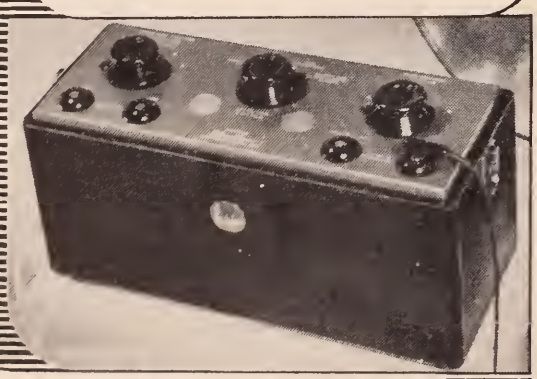
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limbs is due to the larger volume of surrounding muscle. When the cuff is fixed above the ankle, the pressure required for occlusion of the blood flow is considerably lower than that required when the cuff is fixed at the thigh.

6. Heating of an occluded limb produces a considerable rise in blood pressure, owning to the accumulation of metabolites in the muscle. Because of this, and because of the high "blood pressure" in the lower limbs, an extremely high occlusion pressure is required to keep the circulation in the lower limbs interrupted during the period of immersion.

7. Failure to keep the circulation through the lower limbs occluded is considered the main reason why some authors obtained reflex vasodilatation on immersion of a limb in which the circulation was thought to be occluded.

8. Recognition of the "humoral" mechanism underlying reflex vasodilatation as obtained by body heating is of clinical importance. The blood flow through the immersed limb must be good; otherwise, an insufficient amount of heated blood is returned and reflex vasodilatation is minimal or absent. The method, therefore, gives misleading results when there is organic arterial disease of appreciable degree in the immersed limb. The results in such a case reflect the circulation in the immersed extremity, rather than in the one studied.

The findings in a case of severed axillary artery are described to illustrate the importance of good circulation in the immersed extremity for satisfactory assessment, by the immersion method, of the condition of the arterial tree in other limbs.

THE CLINICAL USE OF RADIOACTIVE PHOSPHORUS IN THE SURGERY OF BRAIN TUMORS

Bertram Selverstone, M.D., William H. Sweet, M.D. and Charles V. Robinson, Ph.D. In ANNALS OF SURGERY, 130:4:643. October, 1949.

It has long been recognized that there is need for some physical or chemical method which will permit the accurate localization and demarcation of cerebral gliomas.

Radioactive phosphorus, administered intravenously, has been used clinically in order to

(*Continued on page* 52)

emotional equilibrium for the geriatric patient



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localize and demarcate brain tumors. Its high concentration in cerebral tumors as compared with normal brain was suspected on theoretical grounds, and now appears to be adequately confirmed. A Geiger-Mueller counter of diameter comparable to that of a ventricular needle has been employed at operation in 33 cases in an attempt to localize intracranial tumors. Data adequate for localization was obtained in 29 cases, in 23 of which the tumor did not present on the surface. In one case, diffuse gliomatosis, the method was intrinsically of no value, and in two cases the method was not adequately employed. In one instance no tumor was located, and the clinical course would suggest that none is present.

In 13 cases an attempt has been made to demarcate the tumor for bloc resection or lobectomy through normal tissue. A later communication will report results and limitations of this method when applied to the radical surgery of the gliomas.

Talk of opportunity which prevailed formerly, has been replaced by talk of pensions.

—Kingman, Kan., Journal.

Mary loved John but she worried about the way he squandered money every time they went out together. Finally she consulted her mother.

"Mother, how can I stop John from spending so much money on me?" she asked.

"Marry him!" Her mother said, with a sigh.

If tuberculosis control is to reach its proper goal — the disappearance of tuberculosis from the United States — every reservoir of infection must be found and eliminated. One of the great sources of infection still remaining in this country may be found among inmates of mental institutions. Over and over again we have been told of the high rates of disease which prevail there. In 1946 there were 635,769 mental patients in the United States, and 4,247 of them died of tuberculosis. This is a rate of 668.0 per 100,000 in contrast to 36.4 for the general population. Deaths from tuberculosis in mental institutions comprised 8.3 per cent of the total deaths from tuberculosis in the United States during that year. Robert J. Anderson, M.D., Pub. Health Rep., Jan. 7, 1949.

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Partial Bibliography on Cafergone

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*J.A.M.A. 141:500 (Oct. 15) 1949.

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1. Editorial: Ann. Int. Med. 21: 913 (1944).
2. Ingelfinger, F. J.: New England J. Med. 223: 409 (1945).

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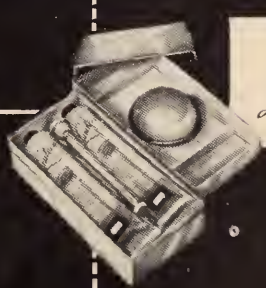
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BOOK REVIEWS



Fractures: By Paul B. Magnuson, M.D., F.A.C.S., Professor of Bone and Joint Surgery and Chairman of the Department, Northwestern University Medical School; Attending Surgeon, Passavant Memorial Hospital and Wesley Memorial Hospital, Chicago, and James K. Stack, A.B., M.D., F.A.C.S., Assistant Professor of Bone and Joint Surgery, Northwestern University Medical School; Attending Surgeon, Passavant Memorial Hospital and Cook County Hospital, Chicago. Fifth Edition. J. B. Lippincott Company. 323 Illustrations. 537 Pages. Price $7.00.

The fifth edition of this concise book does not differ too much from previous editions except that the material has been brought up to date by the addition of World War II experiences. The cardinal principle of this book is that the authors are conservative and advocate the minimum effective therapeutic principles in treating fractures.

J. W. F.

Muscles, Testing and Function by Henry O. Kendall and Florence P. Kendall. The Williams & Wilkins Company. 278 pages. 162 Illustrations. $7.50.

This is a work of art which will be a valuable aid to surgeons, physicians, physical therapists, occupational therapists and physical educators.

A thousand muscle testing examinations were carried out on normal individuals, and several thousand muscle testing examinations were carried out on both paralytic and nonparalytic patients. The result being that the authors are now able to present a comprehensive outline of muscle testing procedures and their functional significance.

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Experience backed up by a basic knowledge of anatomy, physiology, neurology, careful diagnosis and adequate controlled treatment are undoubtedly the secret of success in this presentation. The guiding role of outstanding physicians and surgeons associated with this department at Children's Hospital School, as well as an adequately staffed and equipped department are valuable adjuncts.

The text, charts, photographs and illustrations are beautifully done and easy to comprehend and are backed up by twenty-five years of experience at Children's Hospital school.

This text is well done.

R. J. B.

An Atlas of Amputations by Donald B. Slocum, M.D., M.S. C.V. Mosby Company. 562 pages. 564 Illustrations. $20.00.

This is a beautifully well written text with outstanding illustrations and photographs.

The background of the author is World War II. It is stimulating to note at least one more surgeon who does not dismiss the case when the surgery is finished, but continues on until a satisfactory prosthesis is fitted and the patient can use it well.

The subject matter of the volume has been placed in four main categories, namely orientation, surgical considerations, surgical techniques, and the convalescent period.

The fact that much of the text is taken from recent published and unpublished works is a good omen for a great many text books have made little changes and

(*Continued on page* 58)

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BOOK REVIEWS (Continued)

have the appearance that they were all copied from the same source.

Most all text books and authors treat amputations between Lisfranc's and Syme's with disfavor and in most instances only to condemn them.

This author believes that all amputations between metatarsals and the ideal below the knee level, the Syme is the only one which is satisfactory in routine use.

In discussing the Lisfranc amputation (tarso-metatarsal joint) he states "there will be no axial deformity as long as the muscle pull on either side of the stump remains in balance". This is true, and when sufficient attention to detail is insisted upon and followed through a "foot in equilibrium is the result and will leave the patient with part of his own foot and not a prosthesis."

The illustrations are particularly to be commended as being in a high class all by themselves with no question of doubt as to what they mean.

The inclusion of brachial, stellate and lumbar sympathetic blocks are included. These procedures in many instances, if carried out early, will save a whole limb or at least a great deal more than if it were not done. It should be more frequently carried out.

The many intricacies of partial amputations and combination amputations of digits are discussed with precision.

The artificial appliance is discussed in detail and in association with the different types of amputation, and last but not least, the proper use of prosthesis.

The role of physiotherapy is very interesting and necessary to successful early use of an amputated member.

The book is to be very highly commended.

R. J. B.

MITCHELL-NELSON TEXTBOOK OF PEDIATRICS. Edited by Waldo E. Nelson, M. D. Fifth Edition with 426 Illustrations, 19 in color. 1658 pages. W. B. Saunders Company. $12.50.

This latest edition of a long-respected line of pediatric texts seems to take a fitting place as the most recent member of that excellent group. The entire book has been rewritten and not merely revised as is shown by a brief study of the index. The format is the usual, easily read, two column style, but the subheads, instead of being placed across the column, now divide the entire page, thus making the subject matter more accessible for quick reference. The entire book is intended as a single ready-reference volume for the practitioner as, as such, amply fulfils its mission.

The field of pediatrics has grown in the past few years. In recognition of this growth, there are new sections on Growth and Development, Congenital Defects and Congenital Heart Disease, Mental Growth and Development and Psychological Disorders, Inborn Errors of Metabolism (worth careful study), Anaesthesia for Children, and the Use of the Viral Diagnostic

(Continued on page 60)

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BOOK REVIEWS (Continued)

Laboratory, to name a few of them. In addition there has been extensive revision of the subject matter on Mycotic Infections especially Histoplasmosis, Drug Therapy, the Newborn Infant, Blood, Bones and Joints and Endocrine Disturbances. A new Section on Psychological Aspects of Adolescence adds greatly to the section on Adolescence.

To those of us who knew him, the omission of Graeme Mitchell's portrait as the frontispiece is regrettable. Perhaps he would have preferred it that way; perhaps he speaks through the lips of the present editor who writes: "In order to understand the activities and the reactions of the child, the pediatrician must have or acquire three fundamental attributes: First, Everlasting Patience. Second, Faith in the child's ability to solve his own problems, and Third, Ability to see the problem through the child's own eyes. Unless he resolutely attempts to approach the problems of childhood on this broader and natural basis, he remains a specialist in the *diseases* of Children, rather than a specialist *for* children."

The book is recommended for any practitioner who has, at heart, a real interest in the welfare of children.

J.C.McK.

DISEASES OF THE HEART: By Charles K. Friedberg, M.D., Associate Physician, Mount Sinai Hospital, New York; Lecturer in Medicine, Columbia University. W. B. Saunders Company, 1081 Pages, Price $11.50.

This is a new book on cardiac diseases and has been written in a manner to cover the field in a complete and concise manner. Particular emphasis has been placed on pathological physiology, pathogenesis, and the mechanisms of cardiac manifestations. More important subjects have been written as individual monographs. Somewhat greater space than ordinary has been devoted to less frequent heart diseases. All technical diagnostic procedures are discussed as well as references to cardiac surgery are made. This book is a useful addition to the cardiac library in as much as it is new and not as stereotyped as many books became in rapid succession from the presses.

J.W.F.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

A SHORT PRACTICE OF SURGERY: By Hamilton Bailey, F.R.C.S. (Eng.) F.A.C.S., F.I.C.S., F.R.S.E. and R. J. McNeill Love, M.S. (Lond.), F.R.C.S. (Eng.)

(*Continued on page* 62)



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*Brougher, J. C.: Prevention and Treatment of Postpartum Fissured Nipples with Local Applications of Vitamin A and D Ointment, Western J. Surg., Obstet. and Gynecol. 52:520-521 (Dec.) 1944.

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BOOKS RECEIVED (Continued)

F.A.C.S., F.I.C.S. With pathological illustrations by L.C.D. Hermitte M.B., Ch. B. (Edin.) Pathologist, Royal Infirmary, Sheffield. Eighth edition. With 1198 illustrations of which 280 are coloured. The Williams & Wilkins Company, Baltimore, 1949. Price $10.00.

FOR THE NEW MOTHER: By Mildred V. Hardcastle, R.N.: Illustrated by Shirley Tattersfield; 163 pages. Philadelphia, The John C. Winston Company.

THE PHYSIOLOGICAL BASIS OF MEDICAL PRACTICE: By Charles Herbert Best, M.D., F.R.S., F.R.C.P., and Norman Burke Taylor, M.D., F.R.S., F.R.C.S., F.R.C.P., Fifth Edition. Baltimore, The Williams & Wilkins Company, 1950. 1330 pages. Price $11.00.

PRINCIPLES & PRACTICE OF PLASTIC SURGERY: By Arthur Joseph Barsky, M.D., D.D.S., 499 pages. Baltimore, The Williams & Wilkins Company, 1950, 499 pages. Price $10.00.

POSTGRADUATE GASTROENTEROLOGY — As presented in a Course Given Under the Sponsorship of The American College of Physicians in Philadelphia December MCMXLVIII. Edited by Henry L. Bockus, M.D., Professor of Gastroenterology, University of Pennsylvania Graduate School of Medicine. 670 pages with 258 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price $10.00.

A CENTURY OF MEDICINE IN JACKSONVILLE AND DUVAL COUNTY. By Webster Merritt. 201 pages. Gaines-



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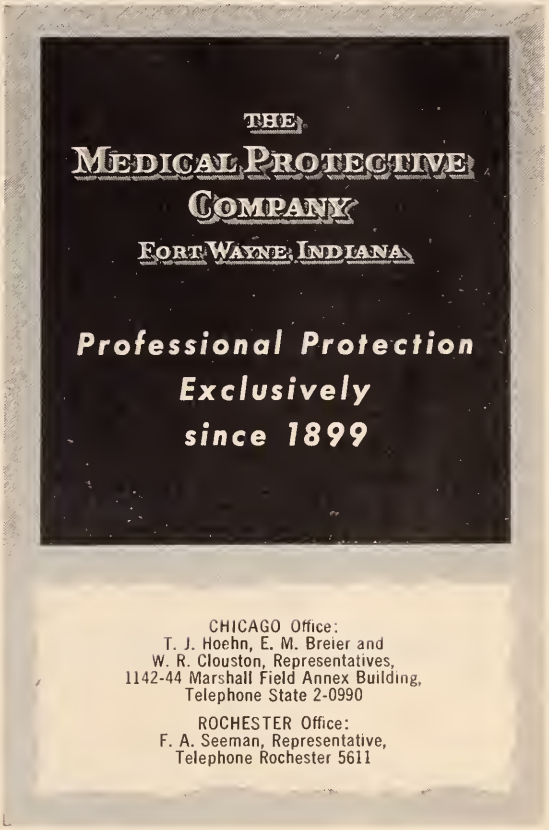
ville, University of Florida Press, 1949. Price $3.50.

THE PHYSIOLOGY OF THOUGHT — a functional study of the human mind in action. By Harold Bailey, M.D., F.A.C.S. 313 pages. New York: The William-Frederick Press, 1949. Price $3.75.

BRAIN AND BEHAVIOUR — Induction as a fundamental Mechanism of Neuro-Psychic Activity. An experimental and Clinical Study with consideration of educational, mental-hygienic and general sociological implications. By N. E. Ischlondsky, M.D., New York. 182 pages with 46 illustrations. St. Louis: The C. V. Mosby Company, 1949. Price $7.00.

CURRENT THERAPY, 1950 — Latest Approved Methods of Treatment for the Practicing Physician. Editor: Howard F. Conn, M.D., Consulting Editors: M. Edward Davis, Vincent J. Derbes, Garfield G. Duncan, Hugh J. Jewett, William J. Kerr, Perrin H. Long, H. Houston Merritt, Paul A. O'Leary, Walter L. Palmer, Hobard A. Reimann, Cyrus C. Sturgis, Robert H. Williams. 736 pages. Philadelphia and London: W. B. Saunders Company, 1950. Price $10.00.

MEDICINE OF THE YEAR, 1950. Second Issue. Editorial Direction — John B. Youmans, M.D., Dean, School of Medicine, Vanderbilt University. 204 pages. Philadelphia, London, Montreal, J. B. Lippincott Company, 1950. Price $5.00.



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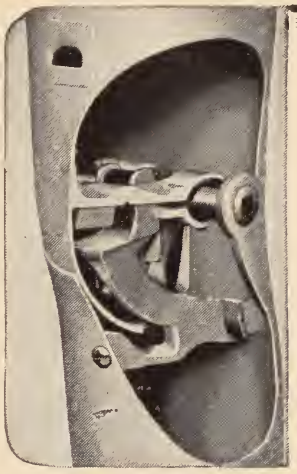
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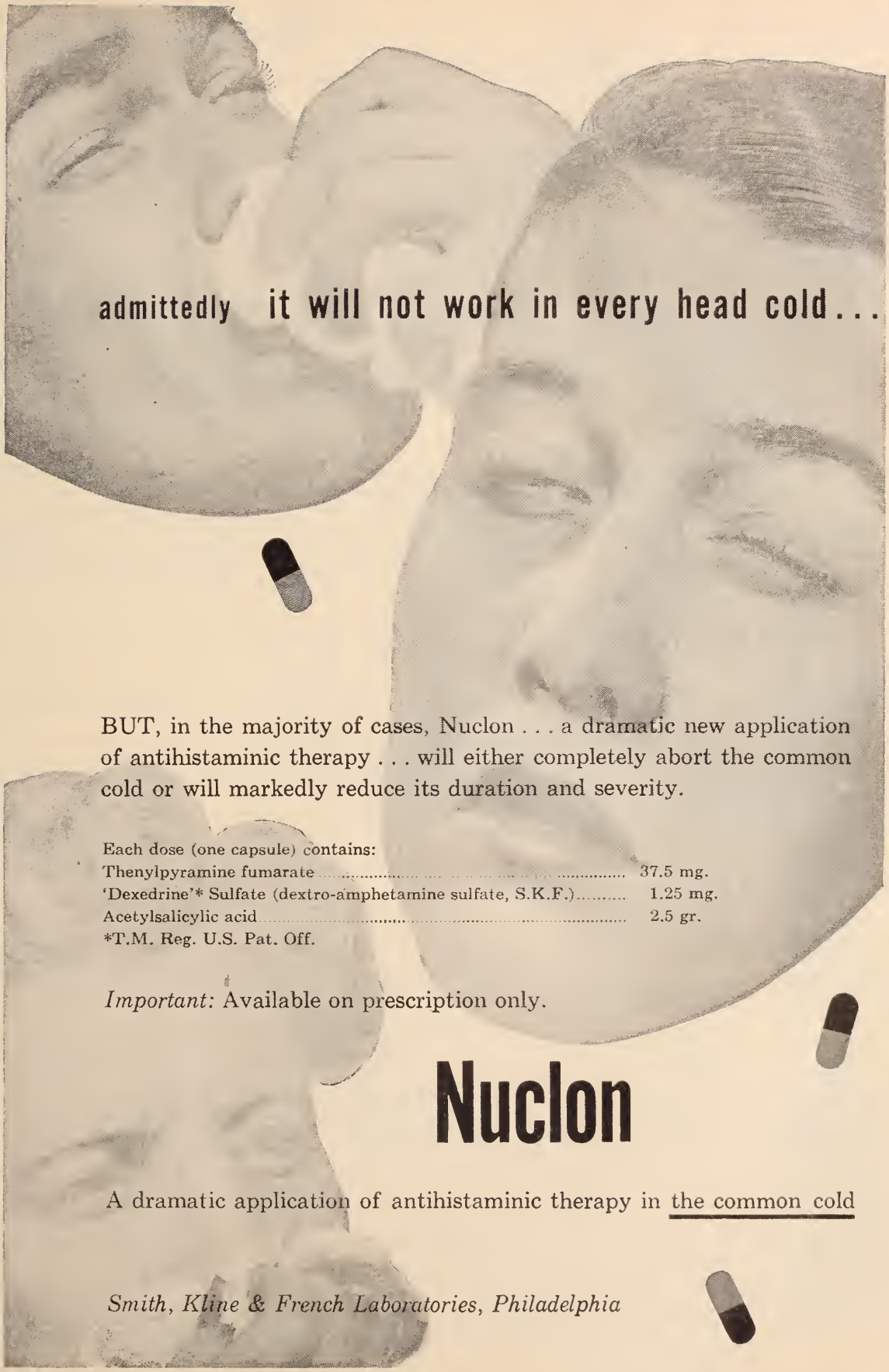
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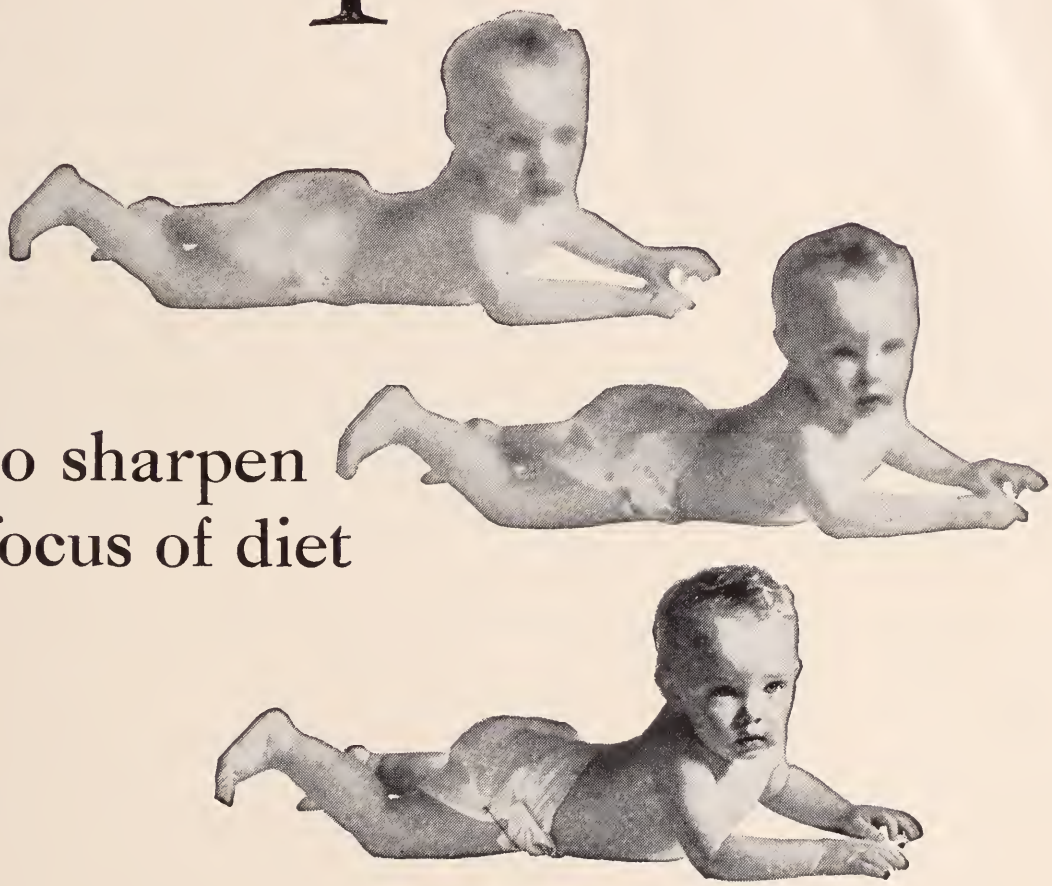
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Post-Operative Care

Salt Excretion in Liver Disease

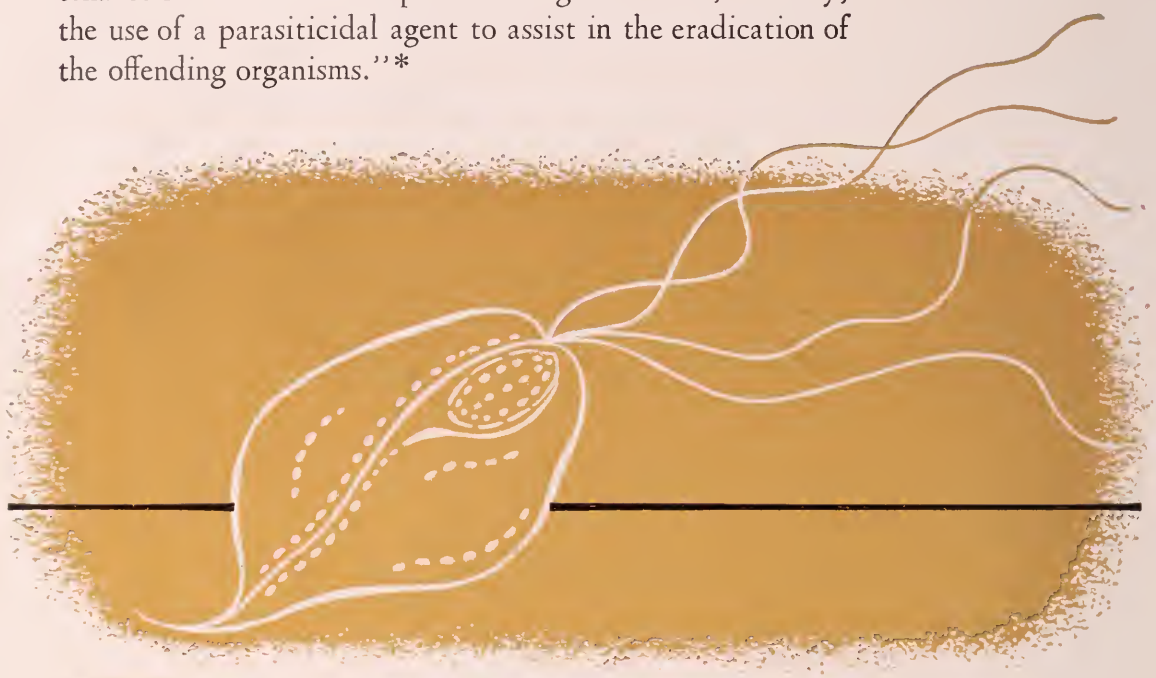
Carcinoma of the Breast

(See page 5 for Table of Contents)

OFFICIAL JOURNAL OF THE ILLINOIS STATE MEDICAL SOCIETY

Fulfils Both Treatment Objectives in Vaginitis Therapy

"The treatment of trichomonas vaginalis vaginitis . . . has pretty well been narrowed down and standardized to two fundamental components of treatment. One is . . . the maintenance of the normal acid pH of the vagina . . . and, secondly, the use of a parasiticidal agent to assist in the eradication of the offending organisms."*



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Floraquin Tablets—for patient's use

*Hardy, J. W.: Office Gynecology, J. Missouri St. M. A. 45:811 (Nov.) 1948.

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1. Rogers, Max P.: J.A.M.A., May 21, 1949
2. Wyatt, Bernard L.: Ann. West. Med. & Surg., Aug. 1949
3. Grimson, Marzoni, Reardon & Hendrix: Ann. Surg., 127:5, May 1948

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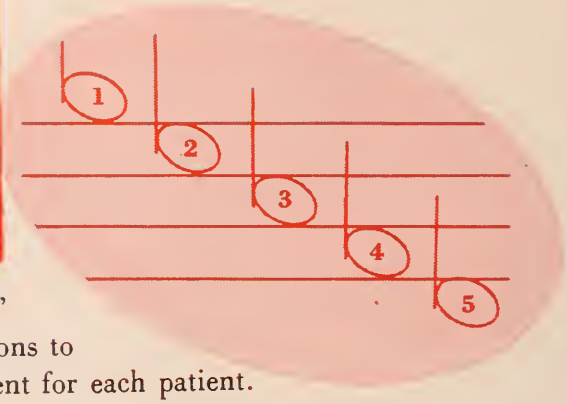
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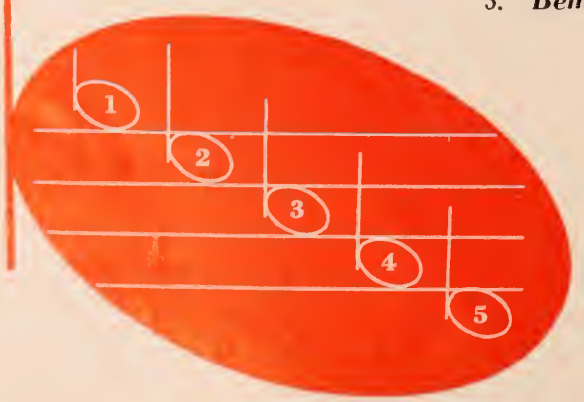
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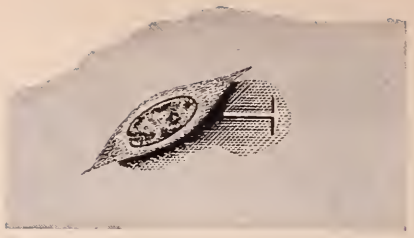
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THE STATUS OF B_{12} ANTI-ANEMIA THERAPY:

Vitamin B_{12} and Folic Acid (Oral)

VITAMIN B_{12} AND FOLIC ACID, given together by mouth, have a pronounced synergistic action. A non-therapeutic amount of folic acid has been found to promote the utilization of vitamin B_{12} in oral doses formerly believed to be ineffective.

HOW DOES IT ACT?

Vitamin B_{12} for extrinsic factor-like activity

Given by mouth, vitamin B_{12} acts like the extrinsic factor of food. The effective oral dose is some 30 to 60 or more times greater than the effective parenteral dose.

Folic acid for intrinsic factor-like activity

Meyer and associates[1] assert that, in vitamin B_{12} and folic acid therapy, "folic acid acts like 'intrinsic factor'" in that it promotes utilization of vitamin B_{12}. The role of folic acid "on the release, absorption or synthesis of vitamin B_{12} in the intestinal tract" is open to speculation, according to Cartwright, Wintrobe and others.[2] Folic acid, Best and Taylor[3] state, may possibly "act to stimulate the production of the intrinsic factor or be the intrinsic factor itself."

B_{12} and folic acid are essential

Luhby and Wheeler[4] suggest:

1. If a folic acid deficiency is profound, even large doses of vitamin B_{12} are hematologically inert.
2. If a severe vitamin B_{12} deficiency exists, large doses of folic acid should be hematologically inactive.

They advance the following possible equation:

(Folic acid) x (Vitamin B_{12}) ——➤ (E.M.F.)

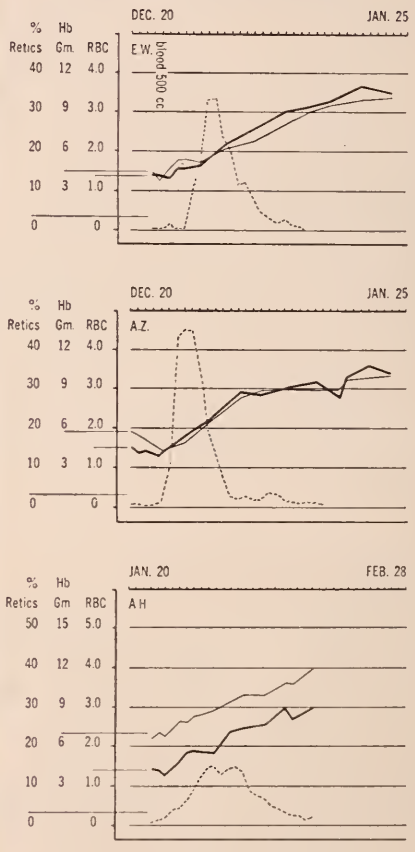
WHAT ARE THE RESULTS OF THERAPY?

With vitamin B_{12} and folic acid, given orally, hematologic response frequently parallels that of parenteral vitamin B_{12} therapy. Ordinarily, clinical remission is both prompt and dramatic. Furthermore, in patients so far studied, oral vitamin B_{12} and folic acid apparently protects against and reverses manifestations of combined system disease.

HOW IS IT AVAILABLE?

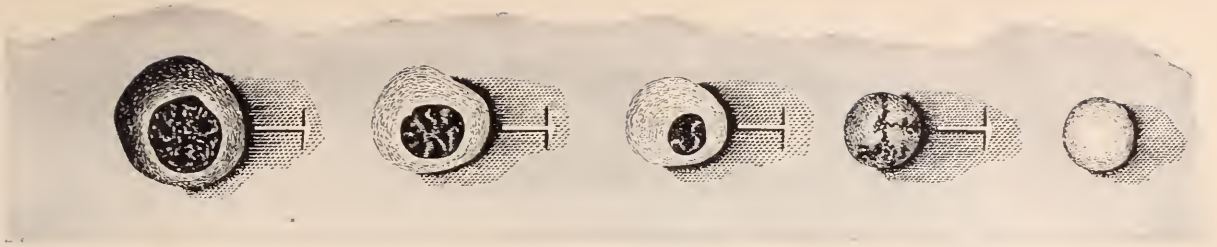
Supplied as RUBRAFOLIN *(See next page)*

Hematologic response to 1 Rubrafolin Capsule daily



INDICATIONS FOR B_{12} THERAPY

Macrocytic anemias ordinarily respond well to vitamin B_{12} therapy. These include pernicious anemia without neurologic involvement, pernicious anemia with combined system disease, nutritional macrocytic anemia, tropical sprue, non-tropical sprue. (Pernicious anemia of pregnancy responds best to folic acid therapy.)



and Vitamin B_{12} Alone (Parenteral and Oral)

Vitamin B_{12} alone—parenteral administration

In most anemias characterized by megaloblastic arrest of the bone marrow vitamin B_{12} will:

1. Reverse megaloblastic arrest of the bone marrow.
2. Protect against and reverse neurologic changes.
3. Reverse gastrointestinal manifestations.
4. Produce rapid, marked and—in most cases—sustained clinical improvement.

Vitamin B_{12} alone—oral administration

When given alone by mouth, vitamin B_{12} is not as hematopoietically active as it is when it is injected. In the megaloblastic anemias, vitamin B_{12} is not easily absorbed by the gut. Much larger doses are necessary if a therapeutic effect is to be obtained.

	THERAPEUTIC DOSAGE	MAINTENANCE DOSAGE	REMARKS	SUPPLY
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RUBRAMIN* Capsules (25 micrograms of vitamin B_{12} per Capsule).	6 to 12 Capsules daily.	To be adjusted to patient's needs.		Bottles of 100 Capsules.
RUBRAMIN 15 or 30 microgram ampuls; 5 and 10cc. vials—30 micrograms per cc.	15 to 30 micrograms once or twice a week.	15 micrograms every 2 weeks or 30 micrograms once a month.	Larger therapeutic doses must be used in the presence of moderate to severe neurologic involvement.	1 cc. ampuls, 15 or 30 micrograms of vitamin B_{12} per ampul. Boxes of 5. 5 and 10cc. vials, 30 micrograms of vitamin B_{12} per cc. also available: Solution Rubramin Crystalline (Squibb Crystalline Vitamin B_{12} Solution) in 1 cc. ampuls, containing 15 micrograms of crystalline vitamin B_{12}.

Bibliography: **1.** Meyer and associates: A. J. Clin. Path. (in press). **2.** Cartwright, Wintrobe and associates: Blood 4:301, 1949. **3.** Best and Taylor: The Physiological Basis of Medical Practice, ed. 5, Baltimore, Williams & Wilkins, 1950, p. 87. **4.** Luhby, A. L.; and Wheeler, W. E.: The Health Center Jl. (Ohio State Univ.) 3:1, 1949.

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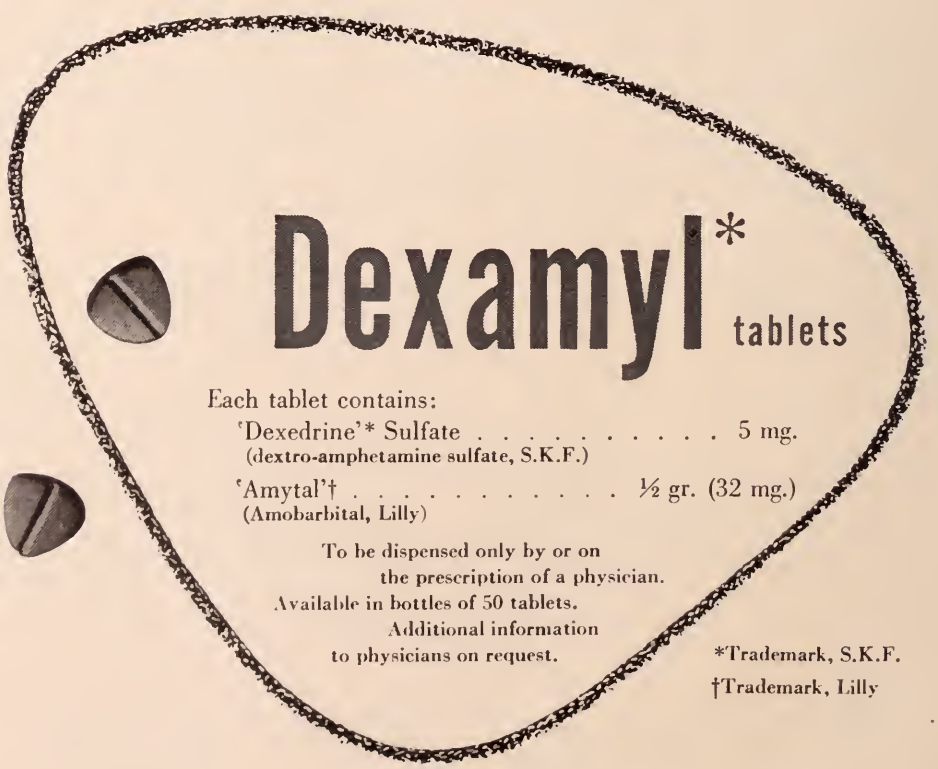


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Am. J. Obst. & Gynec. 57: 541 (1949)

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1. Adair, F. L., Dieckmann, W. J., and Grant, K.: Am. J. Obst. & Gynec. *32*:560 (1936).
2. Talso, P. J., and Dieckmann, W. J.: Am. J. Obst. & Gynec. *55*:518 (1948).
3. Dieckmann, W. J., and Priddle, H. D.: Am. J. Obst. & Gynec. *57*:541 (1949).
4. Neary, E. R.: Am. J. Med. Sci. *212*:76 (1946).
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7. Kelly, H. T.: Penn. M. J. *51*:999 (1948).

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*Schwartz, E.: Ann. Allergy 7:770 (Nov.-Dec.) 1949

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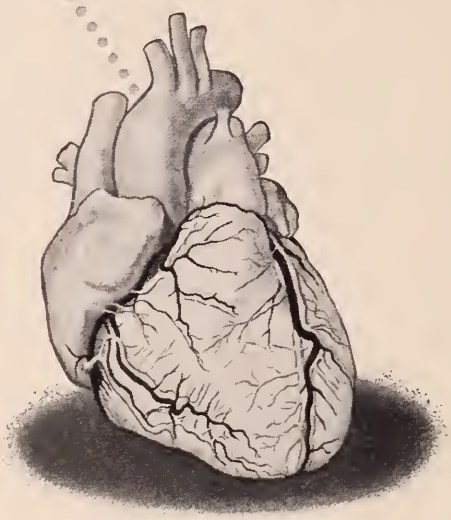
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*Morrison, L. M., and Gonzalez, W. F.: Results of Treatment of Coronary Arteriosclerosis with Choline, American Heart Journal 38:471, September, 1949.

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*Shelmire, B. *Postgrad. Med.*, 4:443, 1948.



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Efficient utilization of any of the many interrelated factors of the B Complex is often dependent on the presence of the others. *Inadequate B Complex therapy in these patients often prolongs recovery.*

THAT is the reason Provite 'B' contains therapeutic concentrations of the important B Complex factors (whose value has been clinically established) plus all the B Complex factors naturally present in liver and yeast.

Each Capsule Supplies:

Thiamin HCl	25 mg.
Riboflavin	12.5 mg.
Pyridoxine HCl	1.5 mg.
Calcium Pantothenate	5 mg.
Niacinamide	150 mg.
Choline Dihydrogen Citrate	100 mg.
Inositol	50 mg.
Secondary Liver Fraction	Q.S.
Yeast, Dried	Q.S.

IVC®

International Vitamin Division

IVES-CAMERON COMPANY, Inc.

New York 16, N.Y.

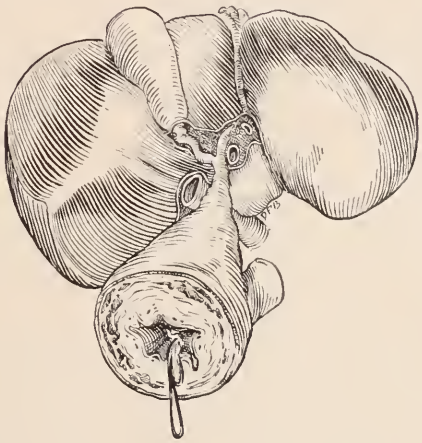
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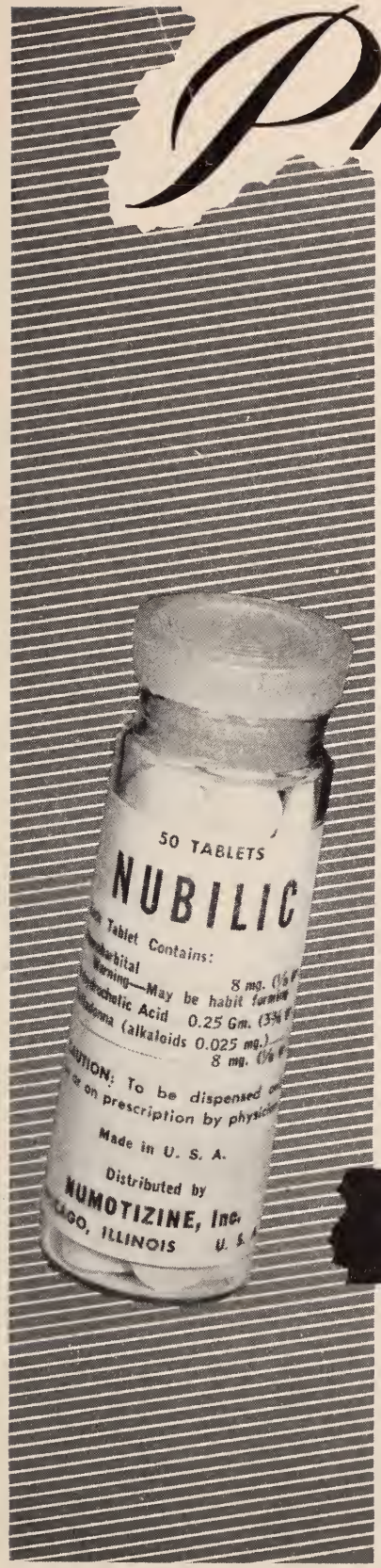
PROVITE 'B'

In bottles of 100 and 1,000 capsules

Physiologic

IN GALLBLADDER MANAGEMENT





NUBILIC represents the modern trend in the management of inflamed and congested gallbladder and bile ducts.

NUBILIC contains dehydrocholic acid, an efficient hydrocholeretic agent which thins the liver bile and flushes the biliary passages.

NUBILIC contains belladonna, which encourages free drainage and relaxes the sphincter of Oddi. This action is further enhanced by the central sedation of phenobarbital.

NUBILIC

Each Nubilic Tablet contains:

Dehydrocholic acid	0.25 Gm. (3¾ gr.)
Phenobarbital	8 mg. (⅛ gr.)
Belladonna	8 mg. (⅛ gr.)

Bottles of 25, 50 and 100 tablets

NUMOTIZINE, Inc.

900 N. Franklin Street • Chicago 10, Illinois, U.S.A.



A good night's rest
A good day's work



Allergic patients get <u>both</u>, with just 4 small doses

Comfort 'round-the-clock for your allergy patients . . . Decapryn provides long-lasting relief with low milligram dosage.

"Symptoms were relieved from 4 to 24 hours after the administration of a single dose of Decapryn—"[1]

"It was found that 12.5 mg. could be given during the day with comparatively few side reactions and yet maintain good clinical results—"[2]

prescribe

Decapryn® SUCCINATE

Brand of Doxylamine Succinate

THE LONG-LASTING LOW-DOSAGE ANTIHISTAMINE

12.5 mg. tablets, P. R. N. Also available in pleasant tasting syrup especially designed for children. (6.25 mg. per 5 cc) and 25 mg. tablets.

Merrell
1828
CINCINNATI • U. S. A.

1. Sheldon, J. M. et al: Univ. Mich. Hosp. Bull. 14:13-15 (1948). 2. MacQuiddy, E. L.: Neb. State M. J. 34:123 (1949).

Spasmolysis plus!



For the patient presenting a clinical picture in the knot of spasm and spastic pain, Donnatal provides controlled spasmolysis, through a precise optimal balance of the principal *natural* alkaloids of belladonna

plus central and peripheral sedation plus freedom from toxic reaction plus choice of alternate dosage forms

plus broad therapeutic applicability in spasm of the gastro-intestinal, biliary, urogenital, respiratory and central nervous systems

plus outstanding economy



Each tablet or capsule, and each 5 cc. of elixir contains:

Hyoscyamine Sulfate	0.1037 mg.
Atropine Sulfate	0.0194 mg.
Hyoscine Hydrobromide	0.0065 mg.
Phenobarbital (¼ gr.)	16.2 mg.

donnatal®

elixir, tablets, capsules

for effective relief of visceral spasm . . . Donnatal Elixir acceptable to *all* ages as spasmolytic alone, or as a therapeutic vehicle for adjuvant medication.

A. H. Robins Co., Inc. · Richmond 20, Virginia

Robins

Ethical Pharmaceuticals of Merit since 1878

now... digestant enzymes released in relay by the peptomatic* tablet

*A coined word to describe the unique mechanical action of the Entozyme Tablet, whereby:



1 pepsin is released only in the stomach, and

2 pancreatin and bile salts are released only in the small intestine.

The multiform aid required in digestional dysfunction or imbalance may now be administered in a single tablet—Robins' Entozyme—which (by unique Peptomatic* action) releases pepsin, pancreatin and bile salts individually at the gastroenteric levels of respective optimal activity. Entozyme has proven particularly efficacious[1,2] in chronic cholecystitis, post-cholecystectomy syndrome, infectious hepatitis, pancreatitis, chronic dyspepsia, and peptic ulcer. It is also especially useful in nausea, anorexia, belching, flatulence and pyrosis.

formula:

Each specially constructed tablet contains pancreatin, U.S.P., 300 mg.; pepsin, N.F., 250 mg.; bile salts, 150 mg.

references

1. McGavack, T. H., and Klotz, S. D.: Bull. Flower Fifth Ave. Hosp., 9:61, 1946. 2. Weissberg, J., et al.: Am. J. Digest Dis., 15:332, 1948.

Robins

entozyme®

The multi-enzyme digestant with unique Peptomatic Action!

A. H. Robins Co., Inc. · Richmond 20, Virginia

Ethical Pharmaceuticals of Merit since 1878

Gold combined with sulfur
as in AUROL-SULFIDE
is considered to be the
best available treatment
in arthritis.

The nontoxicity of
AUROL-SULFIDE has
made gold therapy safe.

SAFE *and* EFFECTIVE
in
ARTHRITIS

AUROL-SULFIDE, 2 per cent parenteral, contains 20 milligrams of gold sulfide or 17.2 milligrams of gold in each cubic centimeter of the solution. It comes, *ready to use,* in 15; 30; 60 cc. vials.

AUROL-SULFIDE *is now available in sufficient quantities.* It may be ordered through your prescription pharmacy or direct

from

HILLE LABORATORIES
6007 N. Lincoln Ave.
CHICAGO 45

Please request literature.

Hail the hardy perennial

POISON IVY

(and Poison Oak)

with prophylactic injections of

Ivyol®

SHARP & DOHME

Poison Ivy Extract



It's the same story every year: poison ivy grows where least expected, grows luxuriantly, green and glossy, and produces its characteristic inflammation and dermatitis in about 50% of all contacts; and not necessarily the same individuals each year either, for sensitivity varies. IVYOL extract may help protect your patients against the discomfort of *rhus dermatitis*. Reports from many sources show the advantage of using a desensitizing extract such as IVYOL which contains the active principle of poison ivy.

Prophylaxis: Contents of one IVYOL vial (0.5 cc.) intramuscularly, each week for four weeks.

Treatment: Contents of one vial (0.5 cc.) intramuscularly, every 24 hours until symptoms are relieved.

IVYOL extract is a 1:1,000 solution of the toxic principle derived from poison ivy, in sterile olive oil, and is supplied in packages containing one or four 0.5-cc. vials.

Sharp & Dohme, Philadelphia 1, Pa.



By keeping the incompatibles apart,

You control the stability

YES, you're in complete control of the B complex injectable situation when you use BEJECTAL. This sterile preparation contains all five major vitamin B complex factors. As incompatible as they are, you control the stability for complete or partial use as needed. The chart tells you why. BEJECTAL is available through your usual source of supply in 10-cc. combination packages.

ABBOTT LABORATORIES,
NORTH CHICAGO, ILLINOIS

Abbott

AT ROOM TEMPERATURE

UNOPENED • • • STABLE—Indefinitely

Unopened Bejectal is stable indefinitely. When mixed the solution contains:



Per Vial (10 cc.)	
Thiamine Hydrochloride	100 mg.
Riboflavin	20 mg.
Nicotinamide	750 mg.
Pyridoxine Hydrochloride	50 mg
Calcium Pantothenate	50 mg.

In Water for Injection, U.S.P.

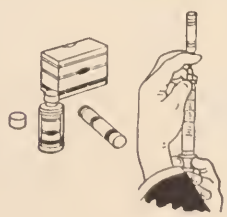
Benzyl Alcohol, 0.9%, is added as a preservative since the mixed solution is for multiple doses.

MIXED • • • STABLE—Up to two months

This is the best way to prepare Bejectal when you expect to use the entire 10 cc. within 2 months. Simply withdraw 4 cc. of the contents from the small vial with a sterile syringe and transfer to the large vial. Shake the large vial and Bejectal is now ready for use.



UNMIXED • • • STABLE—Indefinitely



When you expect 10 cc. to last longer than 2 months, this is the best way to use Bejectal. For example, whenever you want to inject a 1-cc. dose, simply withdraw 0.4 cc. from the small vial and 0.6 cc. from the large vial. Unused portion in separate vials remains stable till needed.

Specify **BEJECTAL®**

(ABBOTT'S INJECTABLE B COMPLEX VITAMINS)



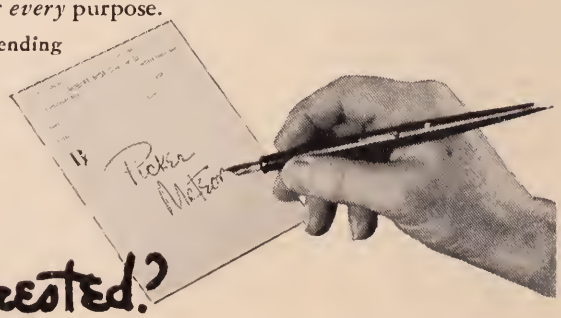
fits my x-ray needs to a "T" — and my budget, too! it's a Picker "Meteor"

"I want to be able to screen a chest or an extremity whenever it seems indicated. I want to be able to radiograph a chest as part of every physical examination I make — especially of new patients. I want to be able to fluoroscope and radiograph suspected fractures in the occasional emergency cases that come to my office.

I can do all that and more, *quickly* and *easily* with the Picker 'Meteor.*' Its 15 MA capacity is ample for my needs. I've had no trouble finding room for it, because it doubles as an examination table. It's a *quality* unit, made by Picker X-Ray . . . they're the people who built the Army Field X-Ray Unit we both worked with during the war. And it certainly is easy on my budget . . . cost far less than I thought I'd have to lay out for such fine equipment."

Maybe your situation parallels Dr. Jones' . . . or maybe it's altogether different. In any case, you can depend on the local Picker representative for unbiased advice, because the Picker line is a full line, embracing apparatus in *every* range, for *every* purpose.

*patents pending



it's simple, sure, easy to operate





you change easily from radiography to fluoroscopy (or vice versa)

vertical or horizontal (full length of head and torso)



it's low-priced at $1495

and above all, it's Picker x-ray

interested? just do this

jot Picker "Meteor" on a prescription blank, and send it to us for details. Or, if you prefer, call in your local Picker representative for the story.

PICKER X-RAY CORP.
300 Fourth Ave., New York 10, N. Y.

PICKER IN ILLINOIS IS AT 223 W. JACKSON BLVD., CHICAGO 6, (WAbash 2-7475)





Look to the Tongue

The tongue may prove to be a good indicator, when vitamin B-complex deficiencies are suspected. When the vitamin B-complex factors are at a low level, let the *taste* of the new, natural orange-flavored OMNI-BETA* IMPROVED provide an added incentive for accepting and raising the vitamin B intake.

The pleasant taste of **Omni-Beta*** *Improved*

masks its rich, full bodied complement of all of the vitamin B-complex factors with the secondary anti-anemia fraction derived from whole liver. Young and old readily accept and frequently even request larger doses of OMNI-BETA* IMPROVED.

One teaspoonful of Omni-Beta* Improved contains:

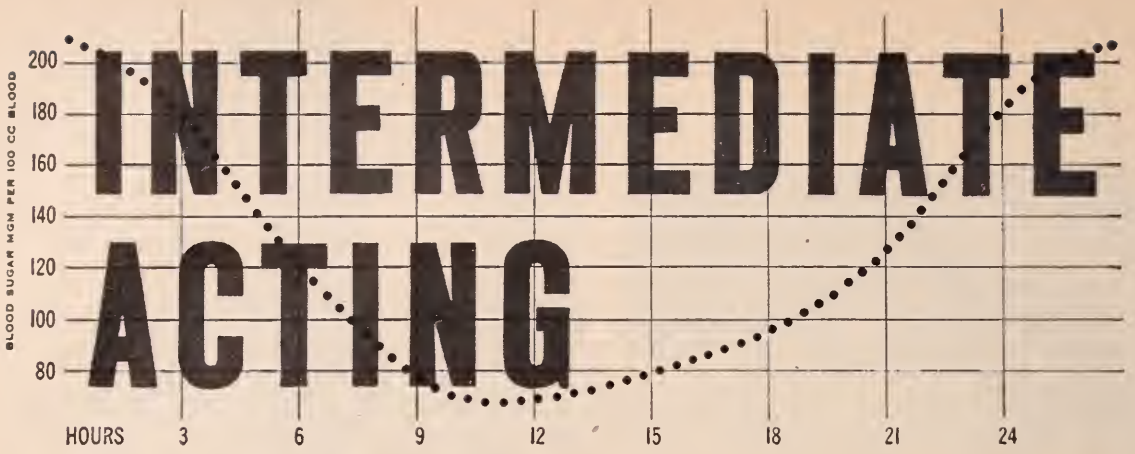
Vitamin B_1 (thiamine hydrochloride) 2.0 mg. (2xM.D.R.†)
Vitamin B_2 (riboflavin) 2.0 mg. (M.D.R.†)
Niacinamide 10.0 mg.**
Pantothenic Acid 2.0 mg.‡
Vitamin B_6 (pyridoxine hydrochloride) 0.2 mg.‡
Choline 20.0 mg.‡
Inositol 10.0 mg.‡
Secondary fraction derived from 10 grams fresh liver

†*Minimum Daily Requirement*
*******Minimum Daily Requirement not established*
‡*Need in human nutrition not yet established*

OMNI-BETA* IMPROVED is available in bottles of 8 and 16 fl. oz. and 1 gal.

William R. Warner & Co., Inc.
New York . St. Louis

**T. M. Reg. U. S. Pat. Off.*



INTERMEDIATE ACTING

GLOBIN INSULIN

'B.W.& CO.'

...was developed to fill the "need for an insulin with activity intermediate between that of regular insulin and that of protamine zinc insulin."[1]

IN 1939, Reiner, Searle and Lang described a new "intermediate acting" insulin.

IN 1943, after successful clinical testing, the new substance was released to the profession as 'Wellcome' brand Globin Insulin with Zinc 'B. W. & Co.'

TODAY, according to Rohr and Colwell, "Fully 80% of all severe diabetics can be balanced satisfactorily"[2] with Globin Insulin 'B.W. & Co.'—or with a 2:1 mixture of regular insulin: protamine zinc insulin. *Ready-to-use* Globin Insulin 'B.W. & Co.' provides the desired intermediate action without preliminary mixing in vial or syringe.

In 10 cc. vials, U-40 and U-80.



'B.W.& CO.'—a mark to remember

1. Rohr, J.H., and Colwell, A.R.: Arch. Int. Med. 82:54, 1948.
2. ibid Prac. Am. Diabetes Assn. 8:37, 1948.

BURROUGHS WELLCOME & CO. (U.S.A.) INC. Tuckahoe 7, New York

AUREOMYCIN HYDROCHLORIDE LEDERLE

in Rickettsial Infections

The discovery of aureomycin marked an epoch in antibiotic specific therapy. The rickettsiae, lying midway between the bacterial and the viral infections are immediately inhibited or killed by this antibiotic. Rocky Mountain spotted fever, Q fever and typhus fever all respond dramatically to aureomycin, without reference to the stage of the disease at which therapy is begun. The ability of this agent to penetrate the cell membranes and attack the intracellular rickettsiae is an important factor in producing its highly specific effect.



AUREO-MYCIN

Aureomycin has also been found effective for the control of the following infections: African tick-bite fever, acute amebiasis, bacterial and virus-like infections of the eye, bacteroides septicemia, boutonneuse fever, acute brucellosis, Gram-positive infections (including those caused by streptococci, staphylococci, and pneumococci), Gram-negative infections (including those caused by the coli-aerogenes group), granuloma inguinale, *H. influenzae* infections, lymphogranuloma venereum, peritonitis, primary atypical pneumonia, psittacosis (parrot fever), Q fever, rickettsialpox, Rocky Mountain spotted fever, subacute bacterial endocarditis resistant to penicillin, tularemia and typhus.

Capsules: Bottles of 25, 50 mg. each capsule.
Bottles of 16, 250 mg. each capsule.
Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

LEDERLE LABORATORIES DIVISION
AMERICAN Cyanamid COMPANY
30 Rockefeller Plaza, New York 20, N. Y.

Are YOU interested in a preparation which has benefited 85.1% of 3634 Arthritic Patients?

• Recently 36 physicians reported to us their results with RAY-FORMOSIL, treating 3634 arthritic patients over a 2-year period. 85.1% were benefited.

Number of Cases Treated (by Type)		Number of Cases Benefited	Percentage of Cases Benefited
HYPERTROPHIC	1906	1663	87.3%
INFECTIOUS	486	392	80.7%
RHEUMATOID	1146	958	83.6%
FIBROSITIS	96	79	82.3%
TOTAL	3634	3092	85.1%

These strikingly favorable results confirm the value of administering RAY-FORMOSIL ampuls in treating rheumatism and arthritis. No untoward effects were reported in any of these cases—RAY-FORMOSIL is virtually non-toxic in its recommended dosages. During the past 15 years, more than one million RAY-FORMOSIL ampuls have been administered.

FORMULA: Each cc. contains:
Formic Acid..... 5 mg.
Hydrated Silicic Acid..2.25 mg.

SUPPLIED: Two cc. ampuls: boxes of 25 ($7.50), 50 ($14.00) and 100 ($25.00).

These net prices to physicians are 25% off regular list prices.

RAYMER

OVER A QUARTER CENTURY SERVING THE PHYSICIAN

PHARMACAL COMPANY

Pharmaceutical Manufacturers

N. E. CORNER JASPER AND WILLARD STREETS
PHILADELPHIA 34, PA.

For Greater Convenience and Economy In Oral and Parenteral Vitamin B_{12} Therapy

New DODEX FORTE
With Oral Activator



Each Dodex Forte tablet provides 5 micrograms of vitamin B_{12}, activated by 500 mg. of natural pyloric substance plus 1 mg. of folic acid.

Effective oral vitamin B_{12} therapy—first introduced as Dodex (With Oral Activator)—is now available for your prescriptions in a new, more potent tablet containing 5 micrograms of vitamin B_{12}, activated by 500 mg. of natural pyloric substance plus 1 mg. of folic acid. These high-potency tablets are supplied as Dodex Forte (With Oral Activator) in bottles of 100 and 1000 tablets. Their availability provides greater potency, convenience, and economy for oral vitamin B_{12} therapy plus the hematopoietic action of folic acid. Dodex Forte is indicated in the treatment of most conditions responsive to vitamin B_{12} therapy; however, until clinical data are more complete, it is not recommended as the sole treatment for true Addisonian pernicious anemia.

DODEX INJECTABLE
Vials (30 micrograms B_{12} per cc.)

New

Dodex Injectable—vitamin B_{12} for intramuscular injection—is now available in 5-cc. multiple-dose vials containing 30 micrograms of crystalline vitamin B_{12} per cc. These new high-potency vials facilitate adjustment of dosage to the requirements and response of your individual patient with far greater ease and convenience. Moreover, Dodex Injectable vials permit significant savings by avoiding the waste inherent in the use of individual ampuls when large doses are needed. The high concentration of vitamin B_{12} available in these vials also spares your patient the discomfort and inconvenience of frequent injections.



Each cc. of the Dodex Injectable vial provides 30 micrograms of crystalline vitamin B_{12} in saline solution.

T. M.—DODEX

ORGANON Inc. • Orange, N. J.



during the Period of Nausea and Vomiting of Pregnancy

Sempylex is a convenient and highly effective means of controlling nausea and vomiting of pregnancy. Exerting its action chiefly through the influence of its contained pyridoxine, it markedly reduces the discomfort of emesis gravidarum and permits normal eating.

Sempylex also provides appreciable amounts of glucose together with thiamine, riboflavin, and niacinamide to further aid in the liver storage of glycogen. This approach also combats the frequently associated acidosis and impaired liver function.

Used early in pregnancy Sempylex frequently prevents nausea and vomiting from assuming serious proportion. Dosage, one tablespoonful four times daily.

Each fluidounce of Sempylex contains:

Pyridoxine hydrochloride (B_6)	35 mg.
Thiamine hydrochloride (B_1)	10 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	25 mg.
Glucose	20 Gm.
Aromatic aqueous vehicle	q.s.

THE S. E. MASSENGILL COMPANY
Bristol, Tenn.-Va.
NEW YORK • SAN FRANCISCO • KANSAS CITY

Sempylex

SEMCO

reaching
to new horizons

ORETON

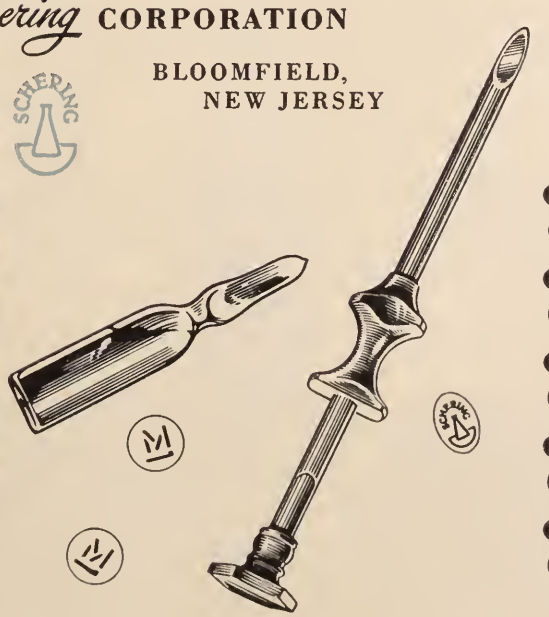
Once regarded merely as a substitute for lacking androgenic hormone, ORETON® preparations have today reached new therapeutic horizons.

As a general stimulus to protein anabolism and as a means of conserving tissue nitrogen, ORETON finds wide usefulness in certain states of debility and in checking the metabolic deterioration of senescence. ORETON has established itself firmly for palliative treatment of female breast carcinoma, endometriosis, functional uterine bleeding and dysmenorrhea.

Schering **CORPORATION**

BLOOMFIELD,
NEW JERSEY





ORETON
(testosterone propionate)

ORETON Buccal Tablets
(testosterone propionate)

ORETON-M® Tablets
(methyltestosterone)

ORETON-F® Pellets
(free testosterone)

ORETON-M Ointment
(methyltestosterone)

ORETON

Hematinic with B Complex

℞

Multi-Beta Liquid 30 cc.
Mol-Iron Liquid q.s. 240 cc.
Sig.: Two teaspoonfuls in water after meals

Sedative with B Complex

℞

Multi-Beta Liquid 30 cc.
Elixir Phenobarbital q.s. 120 cc.
Sig.: One teaspoonful t.i.d.

Fortified Appetizer

℞

Multi-Beta Liquid } aa 15 cc.
Tincture Nux Vomica ... }
Sig.: 20 drops in water before meals

An excellent prescription vehicle . . . White's Multi-Beta Liquid provides generous amounts of the B vitamins in small dosage volume.

One teaspoonful daily of White's Multi-Beta Liquid provides full *adult* supplementation; five drops daily raises the average infant intake of all clinically important vitamin B factors to a nutritionally safe range.

White's Multi-Beta Liquid is a notably stable, *non-alcoholic*, pleasant tasting liquid. Freely soluble in milk mixtures and orange juice. Palatable when taken directly.

White Laboratories, Inc., ***Pharmaceutical Manufacturers, Newark 7, N. J.***

White's

MULTI-BETA LIQUID

Multi-purpose Vitamin B Complex Source

announcing Feojectin

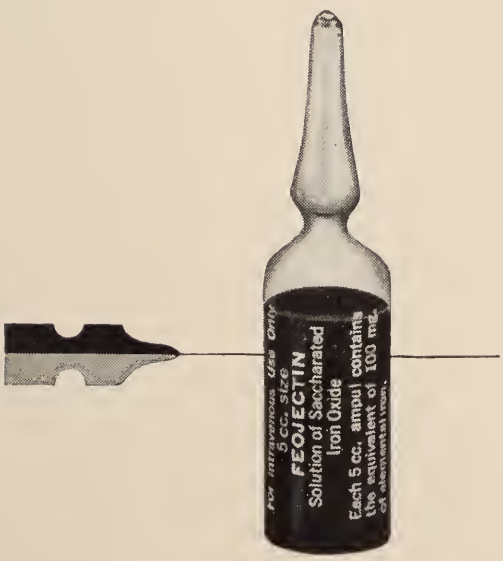
for use when oral iron fails

"Many of the clinical results are as dramatic as the response of pernicious anemia in relapse to full doses of parenteral liver."
(*Slack and Wilkinson, Brit. M.J., April 17, 1948*)

Feojectin is a stable solution of saccharated iron oxide for *intravenous* injection. It is particularly indicated for those cases of iron-deficiency anemia in which oral medication (1) is relatively ineffective, (2) is not well tolerated, or (3) produces results too slowly.

Feojectin is supplied in boxes of six 5 cc. ampuls. (Each ampul contains the equivalent of 100 mg. of elemental iron.)

Smith, Kline & French Laboratories, Philadelphia



Feojectin

a completely new form of iron therapy

PHOSPHO-SODA (FLEET)®

A LAXATIVE FOR *judicious* THERAPY



because of its

Broad Clinical Acceptance

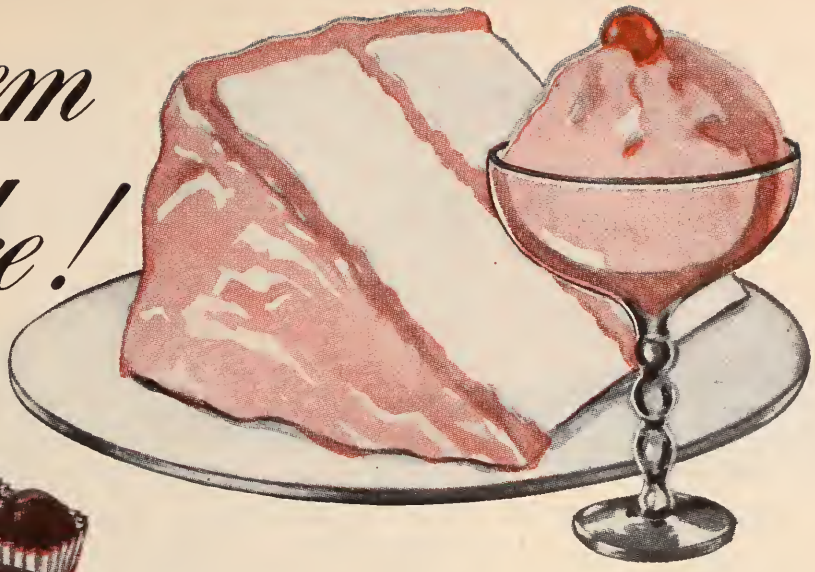
Phospho-Soda (Fleet)'s* wide acceptance by physicians everywhere is a tribute to its prompt, gentle laxative action—thorough, but free from disturbing side effects. Leading modern clinicians attest its safety and dependability as a pre-eminent saline eliminant for judicious relief of constipation. Liberal office samples on request.

*Phospho-Sodo (Fleet) is o solution contoining in eoch 100 cc. sodium biphosphote 48 Gm. ond sodium phosphote 18 Gm. Both 'Phospho-Sodo' and 'Fleet' are registered trade morks of C. B. Fleet Compony, Inc.

C. B. FLEET CO., INC. • LYNCHBURG, VIRGINIA

ACCEPTED FOR ADVERTISING BY THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

lets them eat cake!





Specifically designed for the patient with carbohydrate indigestion, LIQUID TAKA-COMBEX is especially valuable when caloric needs and vitamin requirements are greatest – in illness, convalescence, pregnancy and lactation. The enzyme, Taka-Diastase® is a potent starch digestant; the B-complex vitamins are essential for carbohydrate metabolism. Together, in LIQUID TAKA-COMBEX, this enzyme-vitamin team facilitates absorption and utilization of starchy foods.

LIQUID TAKA-COMBEX®

starch digestant plus B-vitamins



Pleasing in taste and appearance, convenient as a vehicle for other medication, LIQUID TAKA-COMBEX is especially suited to children and the aged.

Dosage: Two or more teaspoonfuls during or immediately after meals. ***Children:*** according to weight and condition.

Each teaspoonful (4 cc.) contains:

Taka-Diastase (Aspergillus oryzae enzymes)	2½ grains
Vitamin B_1 (Thiamine Hydrochloride)	2 mg.
Vitamin B_2 (Riboflavin)	1 mg.
Vitamin B_6 (Pyridoxine Hydrochloride)	0.5 mg.
Pantothenic Acid (As the Sodium Salt)	2 mg.
Nicotinamide (Niacinamide)	5 mg.

This new liquid preparation, supplied in 16-ounce bottles, is in addition to the familiar Taka-Combex Kapseals in bottles of 100 and 1000.

PARKE, DAVIS & COMPANY

MEDICAMENTA VERA

point of departure

for special

feeding cases...



Dryco is not only the point of departure for almost every type of infant formula—it is also in itself a valuable food for special cases. Dryco assures ample protein intake while its low fat ratio and moderate carbohydrate content minimize digestive disturbances.

The applicability of the Dryco formula is strikingly seen in an observation by Pitt: "The majority of cases of infant diarrhea, seen in private practice, are of such nature that changing the formula to one of low fat and low carbohydrate is all that is necessary to correct the condition..." Dryco is specifically recommended for use in these cases.*

In addition to formula flexibility, Dryco offers other advantages.

Dryco's special drying process makes it more easily digested by certain infants than the fresh milk from which it is made. It supplies more minerals, particularly more calcium, than a corresponding formula of whole milk, plus 2500 U.S.P. units of vitamin A and 400 U.S.P. units of vitamin D per reconstituted quart. Only vitamin C need be added. Each tablespoonful supplies 31½ calories. Readily reconstituted in cold or warm water.

Available at pharmacies in 1 and 2½ lb. cans.

**Pitt, C.K.: The Art and Science of Artificial Infant Feeding, J.M. Asso. Ala. 19:101 (Oct.) 1949.*

Dryco®

a versatile base for "Custom" formulation

The Prescription Products Division, The Borden Company
350 Madison Avenue, New York 17, New York



invariably precise

With 'Crystodigin'
(Crystalline Digitoxin, Lilly),
all of the desirable digitalis effects
are achieved without the unwieldy bulk
and often irritating property
of digitalis leaves.
The crystalline purity
of the single glycoside, 'Crystodigin,'
removes uncertainty of dosage.
Weight measurement
further assures precision.

Lilly



Detailed information and literature on 'CRYSTODIGIN' PRODUCTS are supplied through your M.S.R.*

*M.S.R.—Lilly Medical SERVICE Representative



A 19" x 12" reproduction of this illustration by Anton Otto Fischer is available upon request.

from all points of the compass

Blending their scents with seaport aromas, tons of herbs and crude drugs are regularly laid on the docks en route to Eli Lilly and Company.

Providing a complete line of pharmaceuticals means tapping world-wide sources. Most official preparations, as well as better-known specialties, are available with the Lilly label—a symbol of honest and meticulous craftsmanship, scientific skill, and ethical distribution.

Pharmacies featuring the Lilly line of products place emphasis on filling prescriptions with ingredients of only the highest quality.

Lilly

ELI LILLY AND COMPANY

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INDIANA, U.S.A.

The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

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WHAT NEXT?

This is the second anniversary of ACTH and Cortisone. These products still are scarce and less than a handful of Illinois physicians have had the opportunity to use them clinically. In the past, the second anniversary of any new drug would have established the product—either for rejection or acceptance.

ACTH and Cortisone have not followed this pattern. On the other hand, the physicians selected to use them are still enthusiastic, and, in this respect, we know the substances are living up to their reputation. Manufacturing difficulties have proved to be the bottleneck but in many respects the delay is welcomed. More time is needed to establish the safety of the drugs because unfavorable publicity at this time might discourage the further use of these products. In this respect, we hope that history does not repeat itself and that the hormone will not meet the same fate as did digitalis. The latter was held in disrepute for over one hundred years because physicians, including Withering, had not learned to use it properly.

The why, how and where of ACTH and Cortisone cannot be dismissed too lightly. These are academic questions but they have an important bearing on the cause and treatment of disease. The compounds have produced amazing results in many instances making it possible to turn on and off many diseases at will. The arthritic, for example, is relieved of his symptoms but is left with diabetes unless the dose is controlled. On the other hand when the drugs are withheld, the blood sugar and urine return to normal but the arthritis reappears. A tuberculous patient who received ACTH showed signs of improvement within seventy-two hours. The fever began to subside, the sedimentation rate dropped and his appetite improved. In time all signs of the disease disappeared with the exception of the sputum which remained positive. He was well but still infectious.

These phenomena were unheard of two years ago. They are food for thought and may change our concepts of disease and treatment. In the future, the etiology may lose its importance from a therapeutic standpoint; the problem will be tackled by nullifying the reaction of the body to this unfavorable agent. This is creating extensive speculation. Already we are beginning to hear of "alarm reactions", "diseases of adaptations", etc. This is an interesting era and we wonder what the next two years will bring.

Tuberculosis is preventable and eradicable. In the United States it causes one death every nine minutes. Illinois needs 3000 additional sanitarium beds.

HAVE YOU DONE YOUR PART?

Political medicine is a threat to our professional liberties. Most physicians appreciate this fact but too many have been lulled into a sense of false security believing that the battle can be won by a team of clever publicists and a handful of men interested in medical economic problems. But it can be done if we do our part by combating the grievances that are perpetuating the fight. The matter of fees is one of the objections to the medical profession; the other is the inability of the physician to provide 24 hour service.

We can say truthfully that the majority of physicians do not overcharge but like the rotten apple that spoils the barrel, the few that do overcharge are creating the examples for our opponents to use. The fees that most physicians charge are comparable with those of other professions and those who work on a commission basis. The laborer, for example, who at the moment is most prone to criticize, pays more in commissions for a new car than he does to his physician for a serious ailment. In addition, the family who has had occasion to call in a plumber or electrician, or have a television set installed, have paid bills equal, if not higher, than the average house call. But this is not all. Our fees are justifiable considering the investment of time and money that has been spent in preparing for the career, equipment, and cost of maintenance. Furthermore, the skill of the physician in an intangible something that is difficult to evaluate. In many instances it is priceless. The experience and knowledge that some have acquired is more precious than gold when a correct decision means saving a life.

On the other hand, it makes no difference what we think along this line as long as the voters feel that they are being over charged. Rationalization does no good because the fact remains that we now stand accused as a body. The public probably never has taken into consideration that we belong to a profession which has more than the ordinary opportunity to exploit our fellow man. We cannot, nor are we, being accused of this. Most physicians are fair, generous and trustworthy. The medical profession has made many advancements and the more diseases we can prevent and cure the better. To offset the criticism of our profession we must begin by taking action against the small minority who are breaking faith. This group, incidentally, will give us just as much trouble in case socialized medicine becomes a reality. A grievance committee should be considered seriously and the results publicized so that the people will know that a housecleaning is being carried on.

But this is not all. In this day and age the individual is entitled to an estimate of what medical service will cost. Nine times out of 10 this is possible but too many physicians wilt when it comes to a discussion of money matters. They are shy and embarrassed when confronted with this question instead of being dignified and positive as they are in matters related to health. This creates a bad impression, especially when the physician hesitates to speak about the fee and then sends a whopper of a bill. Many patients feel that they have a right to know what our costs will be because they are entitled to refuse to obligate themselves for a bill that is beyond their means. They do not appreciate the fact that most physicians would rather treat the patient first and worry about the bill later.

Nowadays dissatisfied customers know how to advertise their resentment. They write their friends, congressmen and newspapers. But this form of retaliation is nothing compared with the penalty that occurs when they climb on the band wagon and decide to vote for socialized medicine. Yes, it is going to take more than money to win this battle. Since most physicians value good-will above everything there is no reason why we cannot concentrate our efforts along this line.

ILLINOIS HAS A GOOD BOARD

STORIES go around. Public sympathy and public opinion are extended and developed among the American people suddenly and wholeheatedly. Let us keep it so.

"Refugee physicians" come in two classes, as do American physicians, and physicians through all the ages since Hippocrates — good ones and bad ones. Public sympathy must not allow poor physicians to establish their right to practice simply because they are "refugees from oppression in European countries". We must not lower our standards because of sympathy.

HOWEVER, on Bedloe Island in New York harbor stands a statue 155 feet high that has

reached to the stars, as the light of hope shines from her torch. More today than ever before, perhaps If these physicians come to us, men who are tempest tost in the seas of international conflict, we can sort the wheat from the chaff, and give those men who are good physicians, an opportunity to become good Americans, earning their living through the practice of medicine.

The Medical Examining Board of the Department of Registration and Education has had that responsibility throughout the past ten years. We hope they have flown their banner of requirements high — and kept the milk of human kindness in their hearts. We hope the men and women to whom they have given the right and privilege to practice medicine in the state of Illinois have become FIRST, good citizens of these United States, and SECOND, good practitioners of medicine.

One of the requirements for membership in the Illinois State Medical Society is citizenship; another is licensure in the State of Illinois. By this time we hope that the majority of these men have achieved both honors. Illinois does not want a good physician who is not a good citizen: neither do we want a good citizen who is a poor physician to be allowed to practice.

The following licenses were issued to graduates of foreign schools (other than Canadian graduates) during the past ten years.

1939 — 81	1943 — 27	1947 — 26
1940 — 119	1944 — 13	1948 — 25
1941 — 78	1945 — 11	1949 — 24
1942 — 33	1946 — 17	TOTAL — 454

454 is not a large number of people to whom we should teach the story of AMERICA.

MEN FIRST

Statisticians in the Metropolitan Life Insurance Company have reported new information that was most encouraging. They found that life is longer in the English speaking and Scandinavian countries; women live longer than men practically everywhere in the world except India and Russia which are at least two generations behind the United States in longevity.

The most recent data in longevity comes from New Zealand (1934-1938) where the expectation of life at birth is 67 years — the level reached among white persons in the United States in 1945. In Australia, it was 65.3; the Netherlands, 66.5, and Denmark, 66.7. In Germany, the figure was 61.4 in 1932-1934 which was practically the same as for the United States near that time. The most recent information available for Russia is for 1926-1927 when the expectation of life was 44.4 years. Records worse than this are found elsewhere for Asia and Africa. In 1931, India had a life expectancy at birth slightly less than 27 years which according to the Metropolitan Life Insurance Company, was not much higher than that estimated for ancient Rome two thousand years ago.

As always, women outlive men, especially in countries where the standards of health are high. The exception, of course, is India where health conditions are probably the poorest. The most recent bulletin from the Federal Security Agency reveals that the average length of life of white women in the United States has reached a new high of 71 years; the average for white men is 65.5 years. These were based on 1948 death rates. There is no ground here for arguments relative to our health situation.

PANCREATIC CANCER

. . . Undoubtedly the most important single advance has been that of bringing under surgical treatment that group of cancers which, though not all primary in the pancreas, so frequently involve this organ that cure can only be effected by its removal, either partial or complete. For convenience these malignant neoplasms have been designated collectively as pancreatico-duodenal. They include carcinoma of the ampulla of Vater, primary duodenal cancer, carcinoma of the lower third of the common duct, and, of course, pancreatic cancer. The successful treatment of these tumors by radical pancreatico-duodenectomy represents a truly recent development in the field of major surgery. *Excerpt: Newer Concepts in Surgery of the Pancreas, Charles G. Child III, M.D., associate professor of clinical surgery, Cornell University Medical College, Medical Annals of the District of Columbia, January,* 1950.

STATE DEPARTMENT OF PUBLIC HEALTH



Annual Medical Report
Division of Vocational Rehabilitation

Emmet F. Pearson, M.D.*
Springfield and
Duane D. Darling, M.D.*
Chicago

The Illinois Division of Vocational Rehabilitation was instrumental in rehabilitating into gainful employment 3301 citizens in 1949, most of whom were rehabilitated by correction of or improvement of a physical or mental handicap.

The medical program of Vocational Rehabilitation does not provide general medical care. The Division is primarily concerned with correction of disabilities of catastrophic proportions in individuals for whom the remedial measures are beyond their economic means and who are not entitled to services provided by other agencies. Economic need must be established after investigation of the family's resources. The aim of rehabilitation is to make the handicapped self-sustaining after which they should be able to provide for their own general medical care.

A major proportion of patients for physical restorative services have been referred by physicians, and the Division cooperates to the fullest extent with doctors of the state in carrying out their recommendations. If specialty services which are not available where the patient resides are necessary, the Division will provide care in the institution and by the specialist recommended by the referring physician.

The following are some of the rehabilitative services which were provided by this Division during 1949:

General Surgery:	
Herniotomy	74
Cholecystectomy	17
Hemorrhoidectomy	10
Thyroidectomy	3
Fistula-in-ano	9
Other General Surgical Operations	44
Gynecological Surgery:	
Hysterectomy	35
Other Operations	36
Neurosurgical Cases	17
Eye Surgery:	
Cataracts	18
Corneal Transplants	2
Other Surgical Cases	22

*Medical Consultants to the Division of Vocational Rehabilitation.

Otolaryngology:	
Fenestration Operation	12
Other Surgery	23
Thoracic Surgery	9
Urological Surgery	12
Orthopedic Surgery	103
Plastic Surgery	18
Patients hospitalized for diagnostic studies only	61
Patients hospitalized for correction of non-surgical handicaps	48
Patients evaluated by special Hearing Clinics	146
Patients treated by special Epilepsy Clinic, University of Illinois	253
Medical cases handled as out-patients	95
Out-patients for physiotherapy	23
Patients provided intensive psychiatric treatment	82
Artifiical appliances supplied:	
Lower extremity limbs	554
Suction-type limbs	20
Upper extremity limbs	89
Hearing aids	540
Dentures	543
Glasses	137
Artificial eyes	28
Braces and other appliances	185

The Division will also provide care for certain medical patients whose disability may be relieved or controlled by a specific course of therapy. For example: regulation of diabetes by diet and insulin; control of epileptic seizures by proper medications; relief from bronchial asthma by investigation of cause, etc.; relief from rheumatoid arthritis when good judgment indicates a specific course of therapy may be effective; treatment for cardiac decompensation when evidence indicates that medicinal measures may materially relieve the disability; and cure of cancer when the prognosis is good and the recommended therapy offers a reasonable chance for recovery. After control of the disorder has been established, prolonged medical care is not provided by this Division.

The Division of Vocational Rehabilitation provides training for eligible clients who require training to overcome their handicaps. Occupational tools and equipment may also be provided if these items are the most feasible means of effecting the client's rehabilitaion.

Doctors who wish to refer patients to the Division of Vocational Rehabilitation for assistance may contact their district counselor or write to the state office, 700 E. Adams St., Springfield.

SYMPTOMS OF ACUTE CORONARY THROMBOSIS

Severe, vise-like pain in the substernal and precordial areas, the most characteristic manifestation in the acute stage of the coronary thrombosis, is present in about 60 per cent of cases and is variable or absent in the other 40 per cent. Though usually referred to the ulnar side of the left arm, the left side of the neck, occipital region, or upper mid or left abdominal regions, it may, when unusually severe, be felt on both sides of the neck, both arms, and the posterior portion of the thorax. It lasts 15 minutes or longer, gradually subsides over a period of 24 hours or more, and does not respond to nitroglycerin, amyl nitrate or rest.

Dyspnea and hyperesthesia of the precordial region are not uncommon. Occurrence of vomiting and associated dyspepsia often leads to the erroneous diagnosis of "indigestion" which is so frequently made, especially in young people. Sweating, pallor of the facies, and occasionally cyanosis may be noted. Associated sinus tachycardia or arrhythmias, such as premature contractions, paroxysmal tachycardia, auricular fibrillation or heart block, may produce palpitation. Other clinical manifestations, such as rapid, thready feeble pulse; cold, clammy skin: pallor; weakness; and decreased arterial blood pressure, all suggestive of peripheral circulatory collapse or shock, may be present. *Excerpt, Acute Coronary Thrombosis, George E. Burch, M.D., New Orleans, California Medicine, November*, 1949.

CORRESPONDENCE



SPECIAL NOTICE ON PREMATURE PROGRAM

As a result of a conference with the Superintendents of St. Francis Hospital, Peoria, St. John's Hospital, Springfield and Chrisan Welfare Hospital, East St. Louis, arrangements have been made to accept premature infants at the three Premature Centers as hertofore with the following changes:

1. When application is made for financial assistance in paying for the care of a premature baby, the new application form should be completed before the infant is transferred to the Premature Center. The information submitted thereon will be used to determine the ability of the family to contribute toward the cost of the care of their premature infant. That portion, if any, which the family can pay, is to be paid to the Center-hospital under arrangements made by the hospital with the family.

2. It is urged that hospitalization insurance be used where available. An assignment of insurance form should be signed at the time the infant is transferred to the Premature Center. Such insurance is assigned to the Center-hospital and not to the Department of Public Health.

3. The weight of infants eligible for care in which the Department of Public Health may make payment in 5 *pounds* or less.

4. Referral of the premature infant to the Premature Center may be made at any time. However, since the greatest risk to the infant occurs in the first 24 hours of life, referral made as early as possible gives the infant the advantages of care in the specialized Centers at the time of its greatest need.

These limitations do not apply to private cases, and the portion of the application form entitled "Parent's Statement for Care under Program" need not be completed for such cases. Ambulance service for private cases will be provided if requested, since specialized equipment plus skilled nursing care for premature infants is not otherwise ordinarily available.

It has been possible to relax the restrictions applied on January 27, 1950, owing to the availability of unexpected funds and to the high degree of cooperation by Center-hospitals in keeping the program going.

You are invited to make contact with the Center-hospitals for additional information regarding specific cases.

BANQUET HONORS HOYNE

Former students and friends of Dr. Archibald L. Hoyne are invited to attend a banquet to be given in his honor at the Congress Hotel, June 1, 1950, at 6:30 P. M. For further information please contact Dr. Rowine Hayes Brown, Cook County Hospital.

PAYMENT OF A. M. A. DUES

The office of the Secretary of the American Medical Association is receiving many questions concerning the payment of dues voted by the House of Delegates at its December 1949 meeting. Some of the questions and the answers offered by the Secretary's office are reproduced herewith for the information of The Journal's readers.

Question: Does the American Medical Association require the payment of dues by its members?

Answer: Yes. For the first time in its history, the members of the American Medical Association in 1950 will pay membership dues. These dues apply to all members of the Association except those in three specific categories.

Question: What is the amount of the dues for 1950?

Answer: $25.

Question: What are the American Medical Association 1950 membership dues of a physician who joins his country medical society after July 1?

Answer: Dues for physicians who become members after July 1, 1950, are $12.50. The dues for all members before July 1 are $25.

Question: Does a member who transfers from one state county to another pay American Medical Association membership dues a second time?

Answer: No. A member pays his American Medical Association dues only once in a calendar year.

Question: By what authority were the dues set at the $25 level?

Answer: On recommendation of the Board of Trustees and approval by the House of Delegates in December 1949 in accordance with the provisions of the Constitution and By-Laws of the American Medical Association.

Question: What members are exempt from the payment of American Medical Association membership dues for the year 1950?

Answer: (a) Members for whom the payment of dues constitutes a financial hardship as determined by their local medical societies.

(b) Members in actual hospital training for not more than five years after graduation from medical school.

(c) Members who have retired from active practice.

In all instances exemption may be allowed only if the member is also exempt from state and county medical society dues.

Question: To whom should the American Medical Association membership dues be paid?

Answer: To the local or state society, depending on the system of payment established by the state medical association concerned.

Question: When should American Medical Association 1950 membership dues be paid?

Answer: When the member receives his bill from his local or state society. No remittance of membership dues should be made directly to the American Medical Association.

Question: What is the relation between American Medical Association membership dues and Fellowship dues?

Answer: (a) The status of Fellowship and Fellowship dues has not been changed by the establishment of American Medical Association membership dues.

(b) Members may become Fellows—subject to approval by the Judicial Council—by requesting such status on a form supplied by the American Medical Association.

(c) Fellowship dues of $12 and membership dues of $25 are separate dues. Members who are or who become Fellows, therefore, pay a total, combined Fellowship and membership dues, of $37.

Fellowship dues include subscription to The Journal of The American Medical Association or to one of the special journals.

Question: What is a Service Fellow?

Answer: Commissioned medical officers of the Armed Forces and the United States Public Health Service and permanent medical officers of the Veterans' Administration may become Service Fellows of the American Medical Association on nomination by their chief medical officers and approval by the Judicial Council. Service Fellows are not required to pay Fellowship dues and do not receive any publication of the Association except by personal subscription.

Question: Must a Service Fellow be also a member of the American Medical Association?

Answer: No. Service Fellowship is a special category of Fellowship established for physicians in full time Government service, many of whom

are not eligible for membership in their local medical societies. However, a Service Fellow who is a member of a local medical society may elect to pay American Medical Association dues for 1950 and thereby continue his membership in the American Medical Association.

Question: What action is taken when there is failure to pay American Medical Association membership dues?

Answer: Members who are delinquent in the payment of American Medical Association dues for one year and who fail to pay such delinquent dues within 30 days after receipt of notification from the Secretary of the American Medical Association will forfeit membership in the American Medical Association. Retention of membership in the local and state medical societies under these circumstances will depend on the local action of those societies.—J. A. M. A.—April 1, 1950.

"YOUR MENTAL HOSPITALS" ILLINOIS NEUROPSYCHIATRIC INSTITUTE

The Illinois Neuropsychiatric Institute, a research and educational institution located on the Chicago campus of the University of Illinois, Professional Schools, is a joint undertaking of the Illinois Department of Public Welfare and the University of Illinois. The department of public Welfare is in charge of the overall administration of the building, whereas the administration of the clinics and scientific work is the responsibility of the University of Illinois.

The building consists of two towers nine stories high and a central connecting section two stories in height.

The Division of Psychiatry occupies the South Tower and is under the supervision of Dr. Francis Gerty, Head of the Department of Psychiatry. Various floors are devoted to wards for psychotic male and female adult patients as well as psychoneurotics. Facilities are available for all types of treatment including electric and insulin shock therapy, hydrotherapy, occupational and recreational therapy. Special research facilities are available for studies in neurophysiology, biochemistry, electroencephalography, psychology, and extensive animal laboratory facilities. One entire floor is currently being converted into a ward for children for the study of psychosomatic conditions, and cases will be assigned to this unit from the pediatric department of the Illinois Research Hospital.

The Illinois State School of Psychiatric Nursing, under the able direction of Miss Sarah Abrams, R.N. of the Department of Public Welfare, has provided affiliate training in psychiatry during the past year for 260 student nurses from nine nursing schools in the Chicago Area.

A very active out-patient clinic provides psychiatric care for many patients who are referred from various sources and agencies.

Medical Residents in Psychiatry from the Department of Public Welfare and the University of Illinois receive specialized training here in preparation for the Specialty Boards of Psychiatry.

Dr. Eric Oldberg, Head of the Department of Neurology and Neurological Surgery of the University of Illinois, has charge of the Neurosurgical Division which occupies the North Tower. Special wards are devoted to adult neurological and neurosurgical patients. In addition, there is a specialized unit for children's neurology and neurosurgery. The very latest equipment is available to facilitate the activities of the operation pavilion and the neurosurgical procedures. Two entire floors are devoted to laboratories and research facilities in neuroanatomy, neurophysiology and neuropathology. Out-patient facilities for neurological and neurosurgical cases provide this needed service.

Thus we see that every possible facility for the treatment, teaching and research in the field of nervous, mental and neurological disorders, both in children and adults, has been brought together in one building. Here, both psychiatry and neurology have the opportunity to work in their fields, and at the same time the advantages of interdependence and interrelationship are available. The collaboration of the neurological and psychiatric divisions in this one Institute insures mutual helpfulness and provides psychatric and neurosurgical care to many patients from the State of Illinois, as well as care for patients who have been transferred into the Institute from the eleven State Hospitals. G. A. Wiltrakis M.D. Deputy Director

"KNOCKER" GETS REPLY

March 29, 1950

Editor:—

In the March Journal, page 122, a "chronic knocker and yet a real booster", takes the History Committee to task because a third volume of the history has not yet appeared. He also offers some valuable suggestions. If the county societies would develop the sort of loose-leaf living history he suggests they would help, not only this Committee, but future committees which will carry this work forward. If the officers, councilors and members of the Society would take an active interest in its compilation, material would accumulate more rapidly and much interesting information not otherwise obtainable would be made available to the Committee.

But a word about the Committee and its work.

The Committee recommended to the Council that the Crerar Library be made the official depository of our historical data and this was done. That will preserve the data being collected so that we shall never lose it.

The Committee could have hired a professional writer who could have collected enough material and written a history that would have cost $20,000 or more and would have been unsatisfactory because of necessity a great deal of valuable and interesting material would not have been included. Instead it decided to employ trained librarians to gather the material which would eventually be used. So, Miss Ella Salmonsen, Miss Price and Miss Farmer have been busy all these months gathering, classifying and placing in readily available form, material that will eventually go to make up the history. They have not only done a great deal of work themselves but have enlisted the help of various members of the Woman's Auxiliary, who have also done a great deal of work—all this at comparatively small cost. Undoubtedly they will secure more help from this source as time goes on and more members become familiar with the work to be done.

The medical profession and the allied healing arts have played important roles in the development of this state. The record is so impressive that we cannot afford to do injustice to it by having the work skimpy and incomplete.

The dentists have been asked, through Dr. Lloyd Dodd, to contribute a history of their work. The nurses, it is hoped, will write of their accomplishments. The pharmacists will tell us of their developments. The hospitals should have a record of their accomplishments.

Medical men have built railroads, helped dig canals, founded churches and universities. They have had an important role in the development of education in general as well as that concerned solely with medicine. Dr. J. C. Goodhue is known as the father of Chicago's public school system. E. S. Kimberly helped to put the public school system of the state into effect.

Silas Hamilton of Otterville left $4,000 to found a common school. A monument to his memory erected by one of his former slaves still stands in Otterville.

John Evans founded Northwestern University. He also founded medical journals and helped to build two railroads—the Pennsylvania from the state line to the Union Station and the Union Pacific from Denver to Evanston, Wyoming. On the latter he made $500,000 which he gave to the City of Denver. Evanston, Illinois, Evanston, Wyoming, and Mount Evans in Colorado are named after him.

Shurtleff College was named for Dr. Shurtleff

Illinois physicians indulged in group practice a century before the New Deal planners appeared on the scene. Doctors Doke, Dunn and Watkins in Dr. Lane's district had such an arrangement about 1850.

Medicine and medical men have had great influence not only in the healing arts but also on the general development of the state. Physicians have been editors, congressmen, U.S. senators and one was ambassador to Russia. A number have been authors of note.

The Committee is already indebted to more men and organizations than can be enumerated in this space. But a few should be mentioned. Dr. Helga Ruud has written the story of women in medicine. E. B. Montgomery has furnished a great deal of material. Dr. F. Garm Norbury has sent us the history of Morgan County, Dr. Maloney, one of Winnebago County. C. H. Phifer is securing the history of one downstate county. Dr. Cross and B. K. Richardson have contributed a history of public health in Illinois. Dr. D. J. Davis, our Permanent Historian, has contributed much in ideas and guidance.

Pickard and Buley in the "Midwest Pioneer"

have contributed a great deal of material. Their book has a foreward: "To the pioneer doctor who boldly faced the wilderness; and to the pioneer who bravely faced the doctor."

Mr. Knocker and Booster, thanks for the help. Please call again.

"A Committee Member"

NINETEEN CLINICS FOR CRIPPLED CHILDREN LISTED FOR JUNE

Doctor Herbert R. Kobes, director of the University of Illinois Division of Services for Crippled Children has released the June schedule of clinics for physically handicapped children. The Division will conduct 19 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medical social and nursing services. There will be 4 special clinics for children with rheumatic fever and 2 for cerebral palsied children.

Clinics are held by the Division in cooperation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services:

The June clinics are:

June 1—Litchfield, St. Francis Hospital
June 6—Fairfield, Masonic Temple
June 7—Rock Island (Cerebral Palsy)—St. Anthony's Hospital
June 8—Elmhurst, (Rheumatic Fever)—Memorial Hospital of DuPage County.
June 8—Springfield, St. John's Hospital
June 8—Glenview, Village Hall
June 9—Chicago Heights (Rheumatic Fever)—St. James Hospital
June 13—E. St. Louis, Christian Welfare Hospital
June 13—Peoria, St. Francis Hospital
June 14—Hinsdale, Hinsdale Sanitarium
June 15—Rockford, St. Anthony's Hospital
June 20—Watseka, County Court House
June 21—Aurora, Copley Hospital
June 22—Normal, Brokaw Hospital
June 23—Chicago Heights (Rheumatic Fever)—St. James Hospital
June 27—Peoria, St. Francis Hospital
June 27—Effingham (Rheumatic Fever)—St. Anthony's Emergency Hospital
June 28—Chicago Heights, St. James Hospital
June 28—Springfield (Cerebral Palsy)—Memorial Hospital

Approximately 9,003 visits were made to the 167 general clinics held during 1949 and 12,054 individual examinations made.

556 attended the 43 rheumatic fever clinics held during 1949 and 266 attended the cerebral palsy clinics with 266 individual examinations made.

During 1949, 3,892 children were placed on register of the Division.

Approximately 1,652 children received private physician's service through the Division and 2,523 visits were made outside of clinics, hospitals and convalescent homes during 1949.

These diagnostic clinics are conducted by the Division in cooperation with local medical and health organizations. The physicians who serve on the various clinics staffs are private physicians who are certified Board members. The follow up work on the children is based largely upon their recommendations for treatment and care. Private physicians may refer or bring children to a convenient clinic for examination or consultative service.

ILLINOIS MEDICAL SERVICE (BLUE SHIELD) (Formerly Chicago Medical Service)

National Progress of Blue Shield

There are now 69 Blue Shield Plans operating in 38 states. In all of the ten states which have no Blue Shield Plan there are one or more medically sponsored plans either in operation or in the process of organization, which are not members of the Associated Medical Care Plans, hence are not known as Blue Shield Plans. If these non-profit, medically sponsored, non-member plans were added to the list there would be 79. The name "Associated Medical Care Plans" has been changed to "Blue Shield Association," giving cognizance to the importance of the Blue Shield symbol and name.

The total enrollment now exceeds 14,250,000, with 3,900,000 new members gained in 1949 — a 34 per cent increase over 1948. For the first time in history, Blue Shield in 1949 showed a greater net enrollment gain than Blue Cross.

Illinois Medical Service now has an enrollment of approximately 180,000.

As of September 30, 1949, averages of 70 reporting plans showed a reserve of $1.74 per member; 13.19 per cent of income was paid for operating expenses; and 5.93 per cent of income was set aside for reserves. During 1949 Blue Shield Plans paid approximately $100,000,000 for medical services.

Since a majority of Blue Shield Plans have approved the formation of a National Enrollment Agency, efforts are now being made to obtain sufficient contributions from the Plans so that a new corporation may be formed for the purpose of coordinating and servicing accounts on a national basis.

Service and Indemnity Plans

Two thirds of the Plans are now on a service basis, the remainder being of the indemnity type. When a service plan is in effect, physicians accept the scheduled amounts as payments in full for those whose income does not exceed a certain figure, being privileged, of course, to charge more when such income limit is exceeded. There is increasing public demand for this type of plan with realistic income limits of from $4,500 to $5,000 for a family. Such a limitation will include 80 per cent of families in most areas and warrants a sufficiently high premium to increase the scheduled payments appreciably. Where such Plans have been in operation, it appears that the physicians' income has not suffered and the public seems better satisfied.

Special situations and varying conditions require contracts which are designed for particular purposes. Illinois Medical Service is studying various contracts and intends to make them available if and when the time appears propitious.

Whichever type of contract is offered the public, the universal acceptance and cooperation of the medical profession remains the key to Blue Shield success.

It is well recognized that one of the most potent weapons against federalized control of medical care is the enrollment of a sufficiently large percentage of the population in the voluntary plans. And to obtain such enrollment, contracts realistically designed to supply the needs of the people are essential.

Regrettably, the record of Illinois relative to the percentage of population enrolled in medically sponsored plans has not been outstanding. The total enrollment in the Illinois Plan (through commercial insurance companies, sponsored by Illinois State Medical Society) and the four non-profit Plans — Illinois Medical Service (formerly Chicago Medical Service), the Blue Shield Medical Surgical Plan of Illinois (Alton), the Northern Illinois Medical Service Corporation (Rockford), and the Rock Island County Medical Service — is small as compared with that in many other states, based on a percentage of population.

Frederick W. Slobe, M.D.
Secretary

SPECIAL TRAIN TO SAN FRANCISCO

The Council of the Illinois State Medical Society has approved the running of a special train from Chicago to San Francisco and return to take physicians and members of their families to the annual meeting of the American Medical Association. The special train will leave Chicago Wednesday, June 21. The route to Denver will be on the Burlington Railroad, then to Salt Lake City over the Denver and Rio Grande, and the Western Pacific on to San Francisco. Stop overs at interesting scenic points on the way are being arranged.

Three tours have been arranged, the first is the complete tour from Chicago to San Francisco and return to Chicago, with stop overs at several points. The second is from Chicago to San Francisco only, and independent return. The third, for those travelling to San Francisco independently, but returning from that city with the tour.

The special train will arrive at the San Francisco Ferry early Saturday evening, June 24, to give everyone a chance to get their accommodations in the convention city, and be ready for the meeting. Among the points of interest for the return trip, are the route to Los Angeles using the Southern Pacific, and stop over at Los Angeles, where some interesting tours have been arranged.

The trip continues on the Santa Fe to Grand Canyon, with a full day to inspect this scenic spot, and meals at the El Tovar Hotel. The re-

turn to Chicago from Grand Canyon is on the Santa Fe Railroad.

Complete details may be received by writing W. M. Moloney, GAPD, Burlington Route, 105 West Adams Street, Chicago 3, Illinois, Room 711. A copy of the illustrated folder will be sent to all inquirers giving complete details and the overall cost of the trip.

The plan has been approved by the State Society Council, and the railroads jointly are preparing the schedules, and informative data, and will do everything possible to make the trip one never to be forgotten. Stop overs and special tours are included for Denver, Salt Lake City, and through the Feather River Canyon by daylight. The costs include trips in and around Los Angeles, and accommodations at the Ambassador Hotel. The stop at Grand Canyon has been carefully arranged to give a full day at this famous scenic place. The trip has been well planned, and it will appeal to those expecting to attend the A.M.A. meeting in San Francisco.

MEDICAL OFFICERS WANTED

The United States Civil Service Commission has announced that it is accepting applications for Medical Officer positions paying $5,400 and $6,400 a year, and for Medical Officer (Specialist) positions paying $7,600 to $10,000 a year. The positions to be filled are located in various Federal agencies in Washington, D. C.; in the Railroad Retirement Board in Chicago, Illinois; in the U. S. Public Health Service, the Children's Bureau, and the Indian Service, located throughout the United States and in Alaska; and in the Panama Canal Service in the Panama Canal Zone.

To qualify for these positions, applicants must be graduates of a medical school with the degree of doctor of medicine. For most of the Medical Officer positions paying $5,400 a year, applicants must have completed a full internship. For Medical Officer (Specialist) positions, except in the fields of general medicine and surgery, administrative medicine, and adjudicative medicine, applicants must have had a full internship in the specialized field for which they apply or at least 1 year of postgraduate study or 1 year of full-time training as a resident in the specialty. for all positions paying $6,400 and above, professional medical experience is required. No written tests are required.

The maximum age limits for these positions are as follows: For the Panama Canal Service, 45 years; for the Indian Service, 50 years for Medical Officer positions and 55 years for the Specialist positions; and for other agencies, 62 years. For persons entitled to veteran preference, the 45, 50, and 55-year age limits are extended to 62 years, and the 62-year age limit is waived without limitation.

Full information regarding these positions is given in announcement No. 217 and in Examining Circular No. 24. These notices may be consulted at most first- and second-class post offices, or copies may be secured from civil-service regional offices or direct from the U. S. Civil Service Commission, Washington 25, D. C. Applications will be accepted in the Commission's office until further notice.

FORUM ON CLINICAL ANESTHESIOLOGY

The Illinois Society of Anesthesiologists will present a Forum on Clinical Anesthesiology on May 27-28 at the Drake Hotel in Chicago. The program will include papers on "Bedside Control of Fluid Balance", "Modern Trends in Blood Therapy", "Anesthetic Emergencies", and "Xylocaine" by experts in their field. A novel feature of the program will be an "Information Please" panel of five-minute papers on basic anesthesia subjects, followed by a question period. Guest speaker for this meeting is Doctor Ivan B. Taylor, Professor of Anesthesiology at Wayne School of Medicine in Detroit.

All physicians and medical students are cordially invited to attend the scientific sessions.

THE AMERICAN CONGRESS OF PHYSICAL MEDICINE

Will hold its twenty-eighth annual scientific and clinical session August 28, 29, 30, 31 and September 1, 1950 inclusive, at the Hotel Statler, Boston, Massachusetts. Scientific and clinical sessions will be given on the days of August 28, 29, 30, 31 and September 1, 1950. Full information may be obtained by writing to the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

"CHICAGO MEDICAL SOCIETY — A.M.A. CONVENTION AIR SPECIALS" TO SAN FRANCISCO AND THE HAWAIIAN ISLANDS

Now is the time to make plans to attend the A.M.A. convention and to participate in the official A.M.A. Post Convention Tour to the Hawaiian Islands.

A Special Flight to San Francisco and return on a United Air Lines Mainliner 300 (DC-6) is being sponsored by the Chicago Medical Society, and *Illinois State Medical members and their wives are invited to participate.*

San Francisco is only 8 hours from Chicago — Honolulu 9½ hours from San Francisco by clean, comfortable air travel, which permits you to spend more time at your office, yet miss nothing at the convention. Air travel will enable you to spend your vacation in the Hawaiian Islands and save days in travel enroute.

The schedule of "The Chicago Medical Society — A.M.A. Convention Special" is as follows:

	— Going —		
Lv. Chicago	12:00 Noon (CST)	Sunday, June 25, 1950	(nonstop)
Ar. San Francisco (approx.)	6:00 PM (PST)	Sunday, June 25, 1950	
	— Return —		
Lv. San Francisco	12:00 Noon (PST)	Saturday, July 1, 1950	(nonstop)
Ar. Chicago (approx.)	8:50 PM (CST)	Saturday, July 1, 1950	

Air Fares — Chicago to San Francisco and return (meals furnished — no tipping):

	Fare	*Tax*	*Total*
Round trip for one adult (10% discount on return)	$216.20	$32.43	$248.63
One way for one adult	113.75	17.06	130.81

Family rates are effective on Special Flight — one way prorated each:
Husband full fare — wife and any number of children 12 to 22 yrs. half fare —

Husband and wife	85.32	12.81	98.23
Husband and wife, one son or daughter (12 to 22 yrs)	75.84	11.37	87.21
Husband and wife, two sons or daughter (12 to 22 yrs)	71.10	10.67	81.77

Children from 2 to 11 inclusive, half fare. Children under 2 yrs. free.

San Francisco — Honolulu flight schedules and fares:

	— Going —		
Lv. San Francisco (day flight)	10:30 AM (PST)	Ar. Honolulu	6:05 PM (H.T.)
Lv. San Francisco (night flight)	11:45 PM (PST)	Ar. Honolulu	7:20 AM (H.T.)
	— Return —		
Lv. Honolulu (day flight)	9:00 AM (H.T.)	Ar. San Francisco	7:45 PM (PST)
Lv. Honolulu (night flight)	8:15 AM (H.T.)	Ar. San Francisco	7:00 AM (PST)

Round trip for adults (including 20% discount on return)	288.00	43.20	331.20
Children under 12 years of age — half fare	144.00	21.60	165.60

Please complete, detach and mail the coupon below with your check *now* to be assured of the reservations you need.

Dr. Elmer V. McCarthy, Chairman Transportation Committee,
Chicago Medical Society,
30 N. Michigan Ave., Chicago 2, Ill.

Please make reservation for me on "The Chicago Medical Society A.M.A. Convention Special" as follows:

Chicago — San Francisco — Chicago (round trip) ()

Chicago to San Francisco (going) ()

San Francisco to Chicago (return) ()

My hotel in San Francisco will be

Lv. San Francisco for Honolulu (date)

Lv. Honolulu for San Francisco (date)

My check to The Chicago Medical Society in the amount of $..... is enclosed.

Name Address

City Telephone

If you have any questions, write Mr. M. M. Mathews, United Air Lines, 35 E. Monroe St., Chicago 3, Illinois, or telephone RAndolph 6-5500 before you send in your coupon.

HISTOPLASMOSIS IS ON THE INCREASE

Histoplasmosis appears in forms which differ in degree of severity. There is the generalized fatal form, which is seen most frequently in rather extreme age groups, childhood and past 40. Then, there is the asymptomatic form, in which the diagnosis is made by the skin test and confirmed by the presence of pulmonary calcification with a negative tuberculin test. This asymptomatic form is endemic in the Eastern Central states and in several states just west of the Mississippi.

In cases of the generalized fatal form there is usually a febrile process with progressive weakening ending in death within two years. Some symptomatic findings are hepatomegaly, enlarged lymph nodes, splenomegaly, lesions of the lungs, and ulcerative lesions of any portion of the skin and mucous membranes.

The diagnosis is usually made by a biopsy of an accessible lesion. The skin test is of value but may give positive reactions to immunologically related organisms such as blastomycosis. However, a negative test can almost certainly verify absence of this disease. Presence of calcification of the lungs, with a negative tuberculin test, is highly suggestive of histoplasmosis, particularly when a skin test is positive. *Excerpt, Histoplasmosis of the Larynx, Morey Parkes, M.D., and Samuel Burtoff, M.D., Washington, Medical Annals of the District of Columbia, December* 1949.

OPPORTUNITIES FOR CIVILIAN MEDICAL PERSONNEL IN THE PACIFIC ISLANDS

The President has decided that Administrative responsibility for Guam and American Samoa, which are U. S. possessions, and for the Trust Territory of the Pacific Islands, which comprises the former Japanese mandated Marshall, Caroline, and Marianas Islands, will be transferred from the Navy Department to the Department of the Interior. An Executive Order makes this transfer of responsibility effective on Guam on July 1, 1950. The transfer in American Samoa and the Trust Territory is scheduled to take place on July 1, 1951.

It is planned that naval officers and enlisted personnel serving in these island governments will be replaced with civilians before the transfer dates. Each island area has hospital facilities, small island or village dispensaries, and public health organizations. Medical work in these islands, in view of the great need for health services, the varied nature of medical problems, and the differing cultures of the people, offers an important challenge to doctors and other medical personnel.

Guam has a population of about 75,000, of whom 27,000 are Guamanians. The Guam Memorial Hospital, a temporary structure with 250 beds, including TB wards and a staff of nine medical officers, serves primarily the Guamanian population. It is operated by the Guam Government and shares some facilities in common with the adjoining naval hospital. In this medical center are schools for native medical assistants, dental assistants and nurses, which are attended by Guamanians, Samoans and Trust Territory islanders. It has been planned that a permanent, fully-equipped hospital will be built for civilians in Guam in the near future.

American Samoa has a population of over 19,000, almost all of whom are Samoans. The island government maintains a 200-bed hospital, built in 1945-46, and a staff of five medical officers. Since 1912, a training school for Samoan registered nurses has been in operation.

The Trust Territory has been under American administration since the occupation of the islands during and after World War II. The territorial government has established six 50-75 bed general dispensaries, each with a staff of two or three medical officers. These hospitals or dispensaries are located at Saipan in the Marianas, Yap and Koror in the Western Carolines, Truk and Ponape in the Eastern Carolines, and Majuro in the Marshalls. In the smaller islands health work is cared for by native health and nurse aides. A small leprosarium is maintained at Tinian in the Marianas.

In establishing medical positions for the governments of these three areas, the Department of the Interior will follow federal classifications, but applicants need not be on a Civil Service register to be eligible for appointment. Positions for physicians, public health officers, hospital administrators, laboratory technicians, pharmacy technicians, and nurses are available. Salaries for doctors will range from $6400 to $8800 per anum. A post differential of 25% in addition to salary is allowed at present for employees stationed in the islands. Transportation is paid for employees and their dependents. Housing is excellent in Samoa and though of an advanced base type in Guam and the Trust Territory, is adequate for tropical conditions. Houses are furnished and rents are reasonable.

Further information regarding opportunities for health work in the Pacific Islands can be obtained from the Division of Territories and Island Possessions, Department of the Interior, Washington 25, D. C.

ORIGINAL ARTICLES



Post-Operative Care of the Surgical Patient

Max S. Sadove, M.D. and Reuben C. Balagot, M.D.
Chicago

Progress has been made to the degree that in the ususal case, the patient is well cared for during the entire surgical procedure. In most instances, he is also fairly well prepared for the operation. But, the management of the average post-operative patient leaves a great deal to be desired. The post-operative period and the innumerable sequelae stemming from the anesthesia and the operative procedure are unappreciated by a great number of individuals concerned. The fact remains that this period is treated lightly in spite of the hazards which may arise from the various physiological and pathological changes that occur at this time.

If one were to follow the customary sequence of events following the operative procedure, one would find the surgeon directing his interne to "give him the usual." This statement is indicative of exactly what they get — "the usual." This "usual" is frequently inadequate post-operative care.

From the Div. of Anesthesia, Research and Educational Hospital Univ. of Illinois.

Presented before the General Assembly, 109th Annual Meeting of the Illinois State Medical Society, May 18, 1949.

The following comments may serve as a guide to some practical points on post-operative care.

HANDLING OF PATIENT:—There must be gentleness in handling the patient. Any abrupt motion or any degree of rough handling may precipitate an episode of shock due to the fact that the patient is unable to adjust to the sudden hydrostatic changes. This may be caused by a vasomotor paralysis from the premedication or the anesthesia. There need not have been a great deal of blood loss. Simply by brusquely moving or turning the patient from the cart to his bed is enough frequently to start a series of events resulting in marked hypotension. There must be an absolute minimum of movement. The ideal thing, of course, is to have the patient awake immediately at the termination of surgery so the accommodative factors may be as active as possible during the transport to the ward. If possible, it would be well to move the patient directly into his own bed in the operating room.

CONTINUOUS OBSERVATION BY CAPABLE PERSONNEL:—This is a very important phase of post-operative care, especially in

the immediate post-operative period. Observation must not be taken literally to mean watching a patient by just anyone who can count the pulse rate or take the blood pressure. Observation here refers to competent care of the patient by capable personnel from the time the patient leaves the operating table until such time as one is convinced that the patient's condition is safe enough to be left in the hands of the usual post-operative surgical nurse.

Competent observation implies at the very minimum that (1) there is a patent airway, (2) the skin color is good, (3) the pulse is adequate, of good quality, rate, and rhythm, and (4) the blood pressure remains within normal physiological limits.

The blood pressure presented by the patient coming from the operating room is often well within the range of normal physiological variations so that the individual managing the patient is afforded a feeling of false security. The individual who writes the postoperative orders should know how much and what kind of vasopressors were used, what anesthesia was used, how much blood was lost, and other similar important factors. Thus he knows where he stands and will not be surprised should the patient develop shock. What may be an adequate blood pressure may be a false picture. It may have been sustained by vasopressors, CO_2 accumulation, certain anesthetics like cyclopropane, and probably stimulation from the operative procedure. Suddenly, all these props are removed and the patient's blood pressure promptly falls into the true picture of shock. Then again, what may have looked like a normal blood pressure was just a temporary rise in the blood pressure brought about by fluids masking the true picture. Since the body will rapidly eliminate any great amount of excess fluids and salts dumped suddenly upon it, the sustaining effect of these fluids on the blood pressure is temporary.

The observer must be aware of any change in the over-all appearance of the patient. He should check the dressings for any undue bleeding or constriction especially those that bind the lower thorax and neck. All too frequently, one waits for the appearance of cyanosis or other emergency signs before cutting the dressings.

Competent observation must include preparedness and the ability to counteract the sequelae which may result from vomiting. All patients, regardless of the type of anesthesia (it might be well to emphasize at this point that this includes pentothal) might be expected to vomit. This implies that an efficiently working suction machine must be available, not in a few minutes' notice but at a moment's notice. An adequate airway must be maintained at all times during these trying moments. It would be ideal to have the patient in 10° Trendelenburg and on his side or in the prone position.

Some people are fond (especially in operations about the head) of placing the patient in a Fowler's position. This may prevent bleeding from the operative site by posturally reducing the venous pressure. But, this may be subjecting the patient to a greater danger of hypoxia and shock by reducing circulating blood to the vital centers. The hazard of aspirating vomitus if he vomits is tremendously increased in this position. It may be a good rule to prohibit the reverse Trendelenburg or Fowler's position until the patient is completely recovered from the anesthetic.

It is important not to apply too many blankets and hot water bottles so as to overheat the patient. More harm than good may be done by overheating a patient, especially one going into shock or already in shock. Dilating the peripheral vessels with heat may divert much needed blood from the vital centers to the skin. It has been recommended that the optimum temperature for the patient in shock is around 95° to 96° F.

FLUIDS.—Intravenous fluids are frequently stopped upon completion of the operative procedure because of difficulty of maintaining the transfusion. This may be dangerous. Where there is fear of shock, one should have intravenous fluids running continuously. Blood and vasopressor drugs can then be given in a hurry when necessary. It may be difficult to start an infusion once shock has occurred.

This brings us to the question of fluid requirements. A definite idea of the daily amount of fluids needed by the patient must be known before ordering it. This usually should not exceed 3,000 cc in a 24 hour period. Administration of fluids in large amounts may inadvertently lead to pulmonary edema. Fluids should not be limited to saline solutions. Only enough saline to supply the daily requirement—approximately 5 G., should be given. The rest may be made up

with dextrose solutions or the now available protein hydrolysates and amino acid preparations to spare protein reserves in the tissues, and probably promote healing. Blood and Plasma may be used as required.

The rate of infusion should be around 60 drops per minute. The practice of giving the daily requirement in a couple of hours is frequent but erronious.

THE RESTLESS PATIENT, AND OXYGEN:—Occasionally, upon finding the post-operative patient restless, the uninitiated is tempted to give morphine or some other sedative. It is important to consider that the restlessness may be due to hypoxia. Especially is this true after long procedures and those involving the cardio-respiratory systems. The real need is oxygen. The oxygen itself will correct the restlessness. Slowing of the pulse rate after oxygen administration certainly confirms the necessity of oxygen. Morphine may correct the restlessness at times but the anoxemia may continue to injure the patient.

Oxygen may be administered in any one of several ways:

1. *Oropharyngeal Catheter.* This method has its disadvantages, e.g. a local drying effect, perhaps a dehydrating process, and the inconvenience of changing the catheter frequently (once every 12 hours). Also, in inserting the catheter, one must be sure that the catheter tip can be seen beyond the soft palate but that the patient is not swallowing boluses of oxygen. The farther the catheter is introduced and the greater the rate of flow of oxygen, the higher will be the O_2 content in the alveoli. But the greater will be the hazard from swallowing oxygen. This may actually cause perforation of the stomach.

2. *B. L. B. or O. E. M. Masks.* The B. L. B. and the O. E. M. types of masks have as their advantages the high oxygen concentration available to the patient, lack of danger of inflation of the gastro-intestinal tract, and the absence of a drying effect. Their disadvantage is that they are frequently not tolerated because the patient does not like things about his face.

3. *Oxygen tent.* The only good point about this technic is its cooling effect. Its supply of oxygen to the patient is relatively poor, and the explosion hazard is greater.

4. *Positive Pressure Mask.* This has the same advantages and disadvantages as the BLB mask plus the added advantage of positive pressure for such conditions as cardiac failure and pulmonary edema.

Restlessness is occasionally seen in patients who have "emerged from their anesthetic" sufficiently to feel pain and are not yet awake enough so that their actions are the same as the "awake" patient. This patient should be given some intravenous analgesic to relieve his pain. He will then go to sleep and when he wakes up the marked restlessness will have disappeared because the analgesia is still present from the drug given and the depressant effect of the anesthetic will have disappeared.

ANALGESICS:—It's about time we stopped "killing the patient with kindness." Too often, morphine in doses much too large are administered in the post-operative period. It cannot be emphasized too greatly that small doses of opiates are more than adequate in the post-operative period. Aside from its analgesic effect, morphine in small doses, up to a sixth (1/6) of a grain has a dilating action on the bronchioles. In larger doses, it has a constrictive effect aside from diminishing the cough reflex, inhibiting ciliary activity and depressing the respiratory center. The cough reflex is a protective device of the tracheobronchial tree, and, used effectively, is the "clean-up man" of the chest. The use of analgesics p.r.n. is to be condemned wholeheartedly. It is practically an open invitation to pneumonia, although, of course, the antibiotics have more or less alleviated the situation. Still, by keeping the patient quiet with analgesics, the possibility of atelectasis and pneumonia is markedly increased.

"STIR-UP REGIME":—One of the most important things that can be done for the post-operative patient, especially where there is danger of chest complications is the "stir-up regime." This calls for early mobilization of the patient, not necessarily ambulation, but movement in bed from side to side, and movement of the arms and legs. The patient, if possible, should be made to turn himself instead of being turned by an assistant; the patient's effort aids in activating himself. This movement must be enforced and it should be recorded just as one records the blood pressure, pulse, respiration and temperature.

This regime also includes the use of carbon dioxide to stimulate respiration. Our use of carbon dioxide is to permit the gas to flow over the face of the patient thus admixing with air instead of oxygen. In this way, the deep respirations initiated aerate the bases of the lungs as well as aid in the elimination of inhalation agent. The hyperventilation caused by the CO_2 also helps infiltrate behind any plugs present in the tracheobronchial tree a mixture containing approximately 80% nitrogen. Thus, if the patient were to cough at any later time, he would have a gas with which to expel the plug. This would not be the case if one were to use a mixture of carbon dioxide and oxygen, as this mixture would be absorbed from the alveoli in a matter of a half-hour. (However, one must not forget to encourage deep breathing — six to ten deep breaths every fifteen minutes. The patient should also be instructed to cough a few times every half hour, especially if there are any secretions present. Of course the carbon dioxide will aid in production of coughing and deep breathing.) The "stir-up regime" should as mentioned previously be recorded on the chart as though it were a dose of an opiate or similar agent.

SUMMARY

Some practical points in the post-operative care of the surgical patient are suggested:

1. *Handling of patient*: There must be gentleness in all movements; any roughness or sudden movements may precipitate shock.

2. *Continuous observation by capable personnel* to check on pulse, blood pressure, airway, color, temperature, dressings, position, and overall appearance of the patient. Prepardness to counteract the effects of vomiting at a moment's notice is essential.

3. *Fluids, salts and other requirements*: Fluids must be available in the immediate post-operative period. There is always the danger of giving too much fluid and salt. Dextrose and amino acids in solution may be used to complete the volume of fluids necessary.

4. *Oxygen and the restless patient*: Restlessness may be due to hypoxia; and oxygen given as advocated by the oropharygeal catheter method may relieve it. Restlessness may be a result of the anesthetic agent. This is relieved by morphine.

5. *Analgesics*: Their use should be reduced to an absolute minimum or avoided when possible. They usually diminish the useful cough reflex and depress respiration and movement.

6. *"Stir-up Regime"*: Early mobilization of the patient short of ambulation. Carbon dioxide inhalation is advocated. This stimulates deep respirations which help eliminate anesthetic agent and may help expel mucous plugs.

USE OF EXPERIENCE

The learned man is often blind to new experience because the mass of knowledge he has acquired seems to him complete, and he sits, old, weary, and disinterested, among his hoards, looking with lack-lustre eyes on any new treasure that is offered to him for acceptance. The ideal is the man of learning and wide classified experience, who is yet able to see and appreciate at its proper value the new fact which does not fit into its appropriate niche. Such are our geniuses. Such was Hunter. Such are Einstein and Fleming. *Excerpt*: *The Use of Experience, Southern Medicine and Surgery, November*, 1949.

Salt Excretion in Liver Disease

Jennings Fershing, M.D. and Lyle A. Baker, M.D.
Hines, Ill.

That chronic liver disease is associated with disturbed water metabolism has been known since the beginning of this century.[1,2,3,4] The retention of sodium chloride in cirrhotic patients may at times exceed the avidity for salt occurring in congestive heart failure.[5] A lesser but measurable degree of retention of fluid and salt occurs in acute infectious hepatitis.[6] There exists a difference of opinion regarding the therapeutic value of salt restriction in the decompensated cirrhotic patient. Some authors make no attempt to restrict salt or water in their regimens,[7] while others believe that salt restriction with certain qualifications[8] should be part of the management of chronic or subacute liver disease. This report describes the salt tolerance of five cirrhotic patients with varying degrees of clinical edema or ascites, one case with acute hepatitis, and two patients with no evidence of liver disease, who served as controls for the procedure and methods employed in this study.

Procedure.—Five cirrhotic patients, two normal patients, and one patient with hepatitis were selected for study. None had any clinical evidence of kidney or cardiac disease. Patients were placed on a neutral ash diet containing 1.8 gm. of sodium chloride and providing 2123 calories daily. An attempt was made to maintain fluid intake at 2000 cc. daily, but some patients refused this amout of fluid. The intake of fluid, output of urine, body weight, and urinary excretion of sodium and chloride were measured daily. All patients were on this regime five to ten days prior to the day of the experiment.

On the day of the experiment the patient received the usual diet, and total fluids including the intravenous infusion was kept at 2000 cc. At time 0 hours, 400 cc. of 5% solution of sodium chloride containing 20 gm. was injected intravenously over a period of thirty minutes. Venous blood samples were collected at 0, 1, 6 or 7, and 24 hours for determination of serum sodium and chloride. Urine was collected in 2 to 6 hour periods and specimens were analyzed for sodium and chloride.

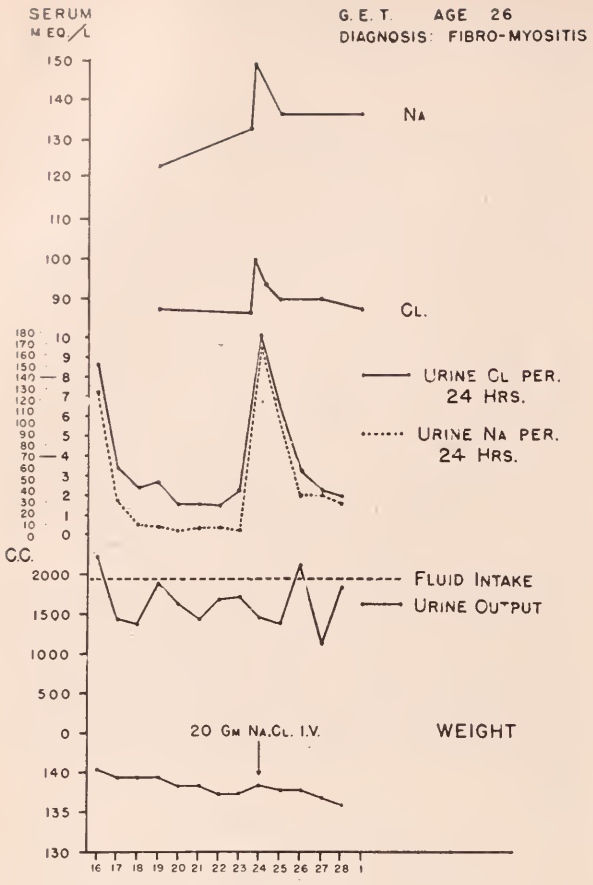
From the Medical Service, Veterans Administration Hospital.

Studies carried out on the day after the experiment and on subsequent days were the same as prior to the experiment. Some patients complained of thirst after the administration of the 5% saline solution but no untoward reactions were noted. Normal subjects on an unrestricted salt intake will excrete a large dose of salt in three to four days as compared to four to five days on a low salt intake. (9,10) Most of these earlier studies were done on the basis of chloride determinations only. This study confirms the fact that sodium excretion closely parallels chloride excretion with the regimen described.

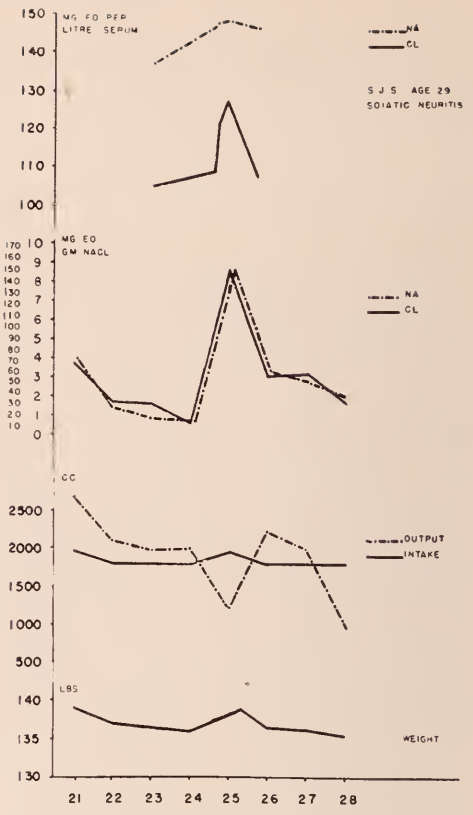
Analytical Methods.—Urinary and serum sodium were determined by the method of Butler and Tuthill.[11] The Volhard-Arnold procedure was used to measure urinary chloride.[12] Serum chloride was estimated by the method of Whitehorn.[13]

CASE REPORTS

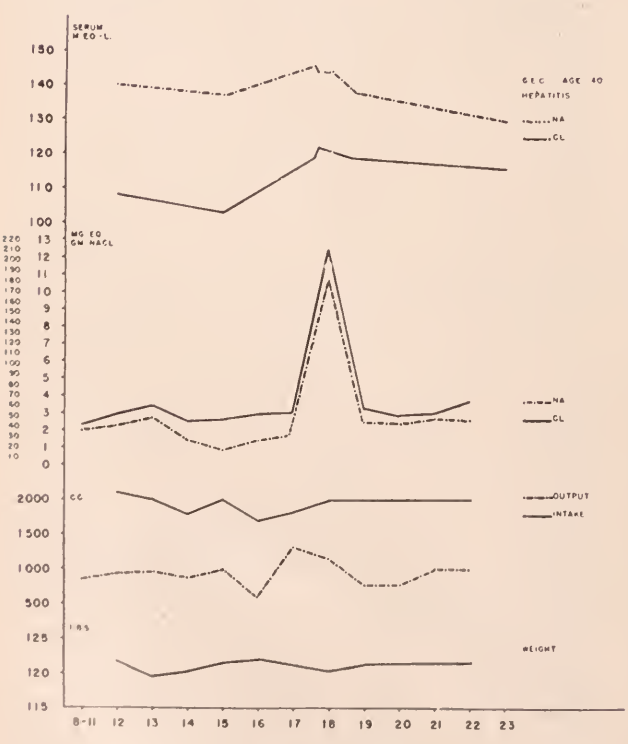
Case I: First control patient, G. E. T., was a 26 year old white male who was being treated for a fibro-myositis during February 1947. His kidney function, as judged by a concentration and dilution test, was normal. It is noted that the patient maintained a total water intake of 2000 cc. daily throughout the study. There was a slight weight loss during the course of the study. On the eighth day of this regimen he was given 20 gm. of sodium chloride intravenously. At the end of one hour there was an increase of 13 m.eq./liter in serum chloride and 16 m.eq./liter in serum sodium. The serum concentrations of these ions returned almost to the base level at the end of twenty-four hours. This same type of response was noted in the cases of cirrhosis. This normal subject, during the first twenty-four hours after the infusion of salt, excreted chloride equivalent to 10 gm. of sodium chloride. The excretion of sodium was only slightly less than this. On the subsequent four days he excreted 6.4, 3.3, 2.3, 1.8 gm. of chloride as sodium chloride and again the sodium excreted was almost the same. On the fifth day after the experiment he had reached the base level from which he had started. Under ordinary conditions, during which a subject is not losing ex-



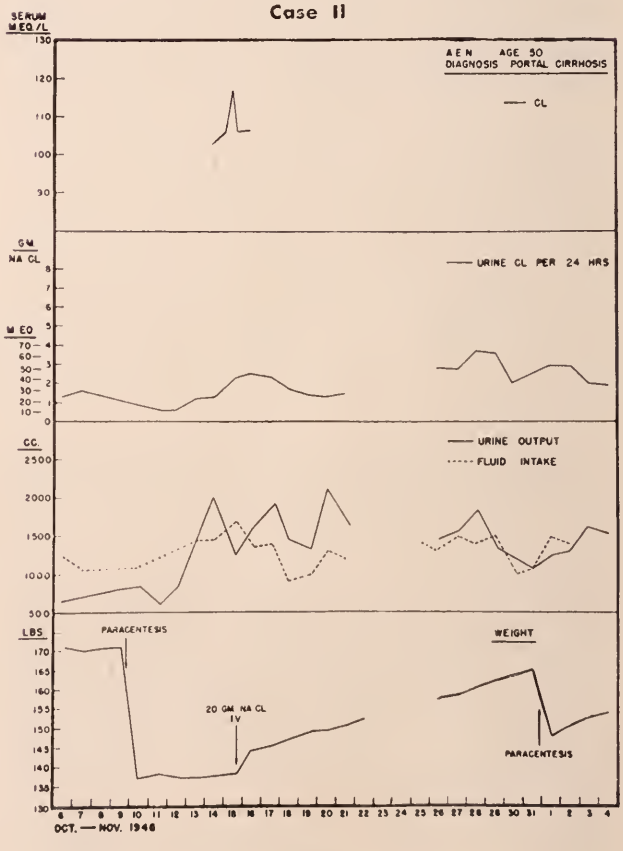
Case I



Case II



Case III



Case IV

cessive amounts of salt by way of the gastrointestinal tract or the skin, the normal subject will excrete during the first day almost half of a large dose (20 gm.) of salt.

Case II: Second control patient, S. J. S., was a 29 year old white male with mild sciatic neuritis who was studied during June 1947. During the first twenty-four hours after the salt infusion there was an 8.5 gm. excretion of salt. On subsequent days this was 3.1, 3.2, and 1.7 gm. This decreased urinary excretion was probably in accord with the increased loss of salt by way of the skin during this time of the year.

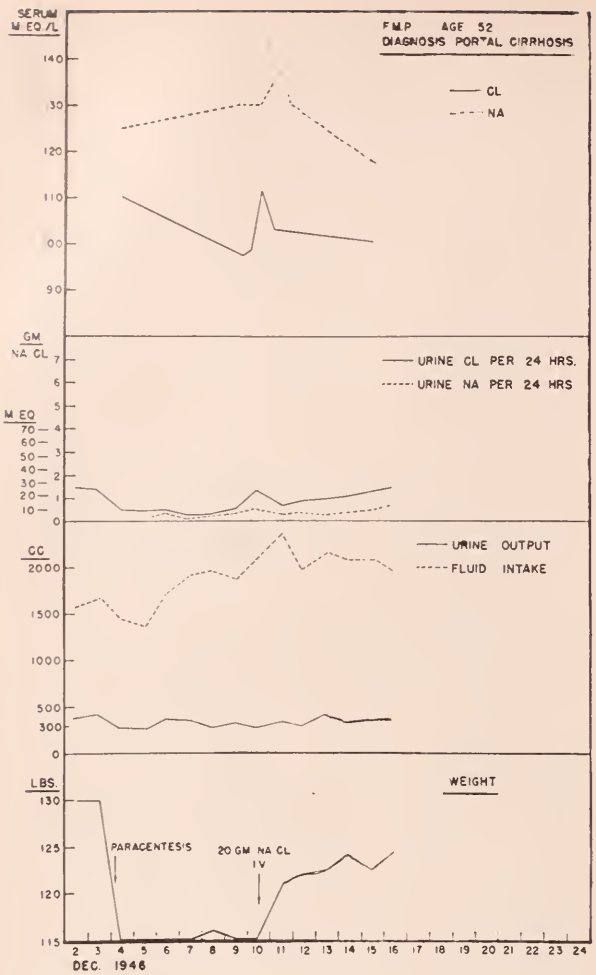
Case III: A patient with acute hepatitis was studied in August 1947. G. E. C., a 40 year old white male was admitted with a history of myalgia, arthralgia of two weeks duration and anorexia, vomiting and malaise of four days duration.

Jaundice was present for six days prior to admission. The liver was palpable and tender. Serum bilirubin was 11.8, cephalin flocculation 4 plus, bromsulfalein test showed 20% retention. On August 27th the serum bilirubin and cephalin flocculation were normal. Patient was discharged September 16, 1947. The response to salt administration on the seventeenth day of his illness was similar to that of the normal control cases. He excreted about 10 gm. of salt within the first twenty-four hours. There was little change in the serum levels of sodium or chloride, and there was no significant change in weight.

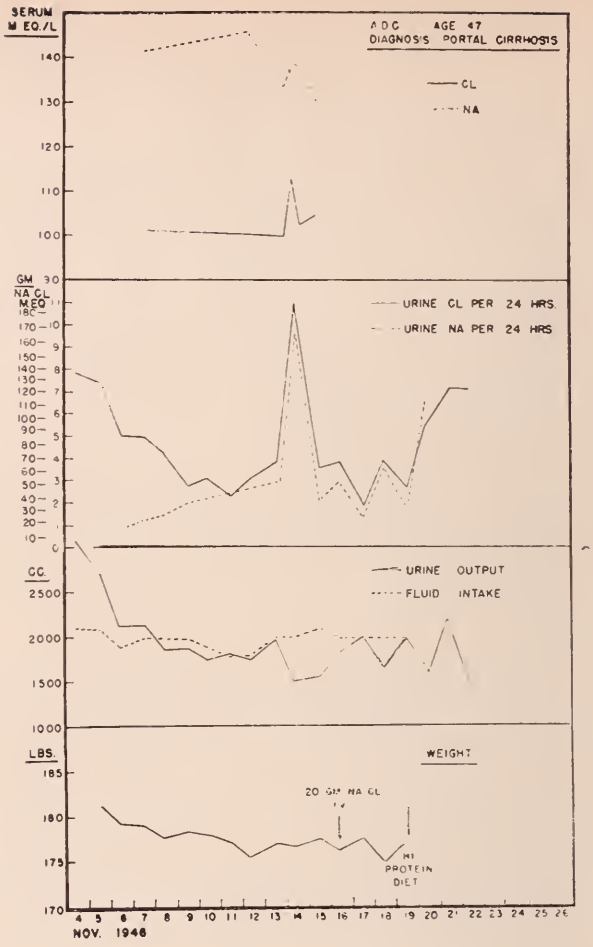
CASES WITH CIRRHOSIS OF THE LIVER

Case IV: A. E. N., a 50 year old white male, was the first patient with portal cirrhosis studied. He had been admitted in October 1945 with abdominal distress and abdominal swelling of ten months' duration. He was an alcoholic of long standing. Jaundice had been noted three months prior to admission. On admission the liver was moderately enlarged, the spleen was not felt, and there was marked ascites. Plasma protein levels ran from 6.0 to 7.2, with an A/G ratio of 1. Bromsulfalein retention was 14% at the end of an hour. Cephalin flocculation was 2 plus to 4 plus. Icterus index was 75 on admission and was down to 10 by March 1946. Concentration and dilution test and phenolsulfonphthalein excretion were normal. The patient was carried on a high protein, high carbohydrate, low fat diet with the usual supportive therapy including crude liver extract intramuscularly, multiple vitamins and choline orally. He required an abdominal tap every twelve to fourteen days. The patient's clinical course was static at the time of this study, in October 1946. This patient was studied over a long period of time and could not be kept on a fixed diet as were our other patients. The sodium chloride content of his diet varied from 2 to 3 gm. a day. No sodium determinations were done on this case. The water intake was also not controlled since the patient refused to take more than 1500 cc. daily. Disregarding these factors, the graph shows a retention of a large amount of the salt given intravenously. He only excreted 2.2 gm. of sodium chloride during the first twenty-four hours of the experiment, and 2. 5 gm. on the second day. It is noted that there was a prompt increase in weight after giving the salt infusion. There was a remarkable increase in abdominal girth, but no peripheral edema within twenty-four hours. He continued to accumulate fluid but at a slightly reduced rate on the low salt intake.

Case V: F.M.P., age 52, admitted October 28, 1946 with weight loss, weakness, rectal hemorrhage, and ascites of three months' duration. He admitted to drinking "six whiskies" daily for thirty years. He appeared cachectic, with pallor, ascites, dilatation of the veins on the abdomen, hepatomegaly, and external hemorrhoids. He required several transfusions. Serum bilirubin 1.2 mg. Plasma albumin 3.7 gm. and globulin 3.1 gm. Caphalin flocculation 2 plus. Kidney function test was within normal range. Icterus index was 35 on admission and 8 at the time of the study. Abdominal paracentesis was performed on three occasions prior to the experiment and again one month after the experiment. This subject was very much like the first cirrhotic case presented. It should be noted that even though his intake was maintained at 2000 cc. per day there was a continued urine output of less than 500 cc. daily. The chloride excretion expressed as sodium chloride was less than 0.5 gm. per day. On the first day of the experiment he excreted only 1.4 gm. of sodium chloride, and on subsequent days it was less than 1 gm. a day. The sodium excretion was hardly detectable. Again one notes the prompt gain in weight on the day following the experiment. Patient was discharged on February 26, 1947.



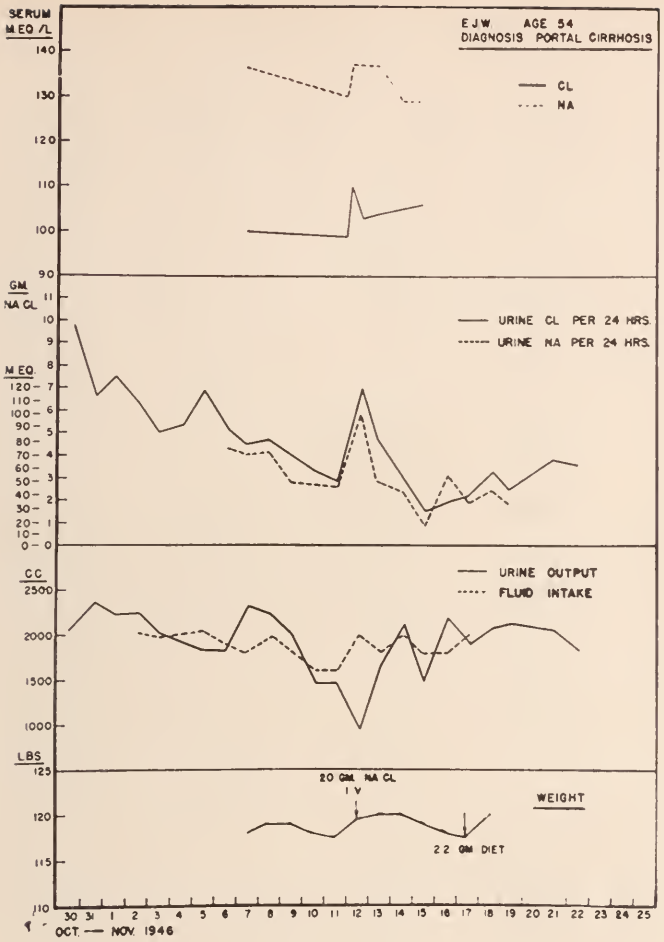
Case V



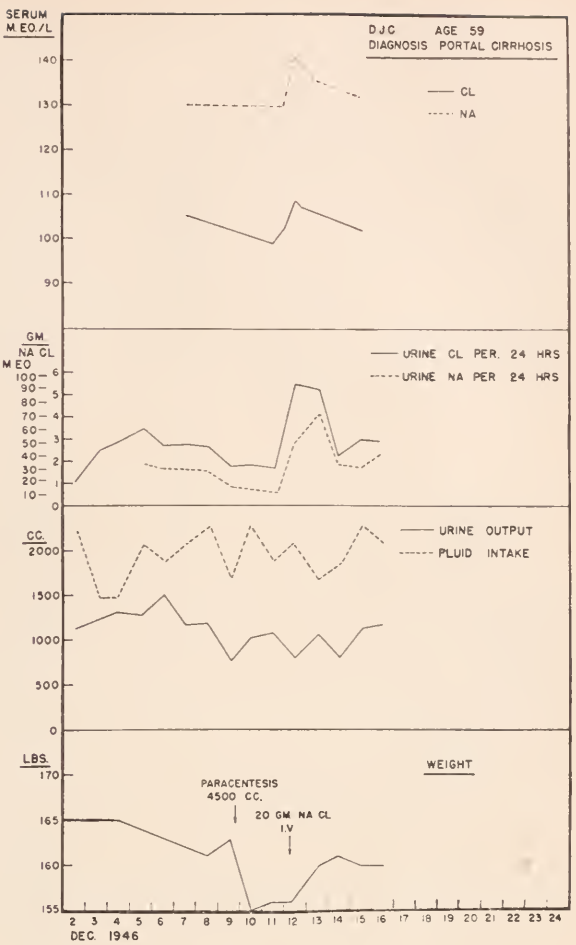
Case VI

Case VI: A. D. C., age 47, admitted September 18, 1946 with a history of intermittent jaundice since March 1945. Patient admitted to being a heavy drinker of whiskey and beer since 1920. Ascites was first noted in August 1946 and a paracentesis had been performed at that time. Patient was slightly jaundiced on admission and spider nevi were present on the face. Blood pressure 170/106. Only one paracentesis was performed, on September 21, 1946 and an enlarged liver and spleen were palpated at that time. The kidney function tests were not remarkable. Icterus index was 18 on admission and 10 at the time of study. Bromsulfalein retention 22%. Cephalin flocculation was 2 to 4 plus. The A/G ratio was 1 with the albumin usually 3.3 gm. or more. At the time of study the patient still had slight ascites and edema of the legs. Judging from the data, however, his ability to excrete salt was not seriously impaired. During the first twenty-four hours following the salt infusion almost 8 gm. of chloride as sodium chloride were excreted. He excreted a total of only 3.6 and 3.8 gm. on the second and third days. The sodium excretion was similar to the chloride excretion. There was no significant change in weight. Apparently this patient, at the time of study, was able to handle salt and water in almost a normal fashion and was slowly excreting the accumulated edema fluid. Patient was discharged November 27, 1946 A.W.O.L.

Case VII: E. J. W., age 54, admitted July 13, 1946 with a history of abdominal distention and moderate swelling of the lower extremities of three weeks' duration, and melena and jaundice of three days' duration. He admitted being a heavy user of alcoholic beverages for many years. The liver was moderately enlarged and the spleen was not palpable. Icterus index was 80. Serum albumin was 3 gm. or more with an A/G ratio of 1 most of the time. The cephalin flocculation was 3 plus to 4 plus. The concentration and



Case VII



Case VIII

dilution test and phenolsulfonphthalein excretion were normal. At the end of October 1946, when this patient was studied, the ascites, edema and jaundice had cleared completely. An abdominal tap was never performed in this case. The therapy was as described above and the patient was discharged January 10, 1947. Although he was compensated, the data show that he excreted only 4 gm. of the 20 gm. administered on the first day of the experiment and a little less than 3 gm. on the second day. The sodium excretion followed the chloride excretion closely. Apparently this patient's salt tolerance was poor and it seemed one could predict an early recurrence of edema if he continued on a large salt intake. Although no follow up study was done on this case, reexamination in Janary 1948 revealed no recurrence of edema or ascites while on a low salt diet.

Case VIII: D. J. C., age 59, admitted November 20, 1946 with ascites of three months' duration, and a questionable alcoholic history. The liver was greatly enlarged but the spleen was not felt. There was no dependent edema or jaundice. Icterus index 9.6. Thymol turbidity 15 units. Plasma albumin 4 gm. Globulin 3 gm. Bromsulfalein retention 20% at the end of one hour. The graph shows a decline in the weight curve, some increase in urine output and chloride excretion at the onset of the study. This was probably a reflection of his improved salt and water metabolism. A paracentesis was done on December 10, 1946 — mostly for diagnostic purposes. 20 gm. of salt were administered on December 12, 1946. A total of 5.5 gm. of salt was excreted the first day and 5.3 gm. the second day. There was a weight gain of about three pounds at this time. The patient's weight remained stationary at this level while under observation. Patient was discharged January 4, 1947.

Results:—The control studies demonstrate the variation in salt retention obtained at different temperatures. During the winter as much as 12 gm. of the 20 gm. administered may be excreted on the first day. In the summer urinary

FIGURE 1: SUMMARY OF DATA ON THREE PATIENTS STUDIED

Subject, diagnosis	Time after injection of salt (hours)	Date	Urine Vol. per 24 hrs. (cc)	Urine Chloride per 24 hrs. (m.eq.)	Urine Sodium per 24 hrs. (m.eq.)	Serum Chloride (m.eq. per liter	Serum Sodium (m.eq. per liter)
Case I		2/19/47	1900	45.5	9.9	87.5	123.5
(G.E.T.)		20	1650	28.2	7.5		
Fibro-		21	1450	27.4	8.95		
myositis		22	1712	27.1	9.1		
		23	1725	38.4	5.6		
20 gm. NaCl I.V.	0:0	24				86.2	133.2
	1:0					99.7	149.2
	6:0					93.3	84.4
	24:0		1465	183.2	168.9	90.2	136.5
		25	1390	110.0	97.9		
		26	2130	55.5	36.6		
		27	1130	38.8	38.2	90.2	143.5
		28	1840	31.5	31.0	87.5	136.5
Case VII		11/7/47	2330	76.6	69.4	100.0	136.5
(E.J.W.)		8	2270	81.6	75.0		
Portal		9	2010	69.0	48.8		
cirrhosis		10	1440	56.7			
		11	1450	47.0	44.7		
20 gm. NaCl I.V.	0:0	12				99.0	130.0
	1:25					110.0	137.0
	7:10					103.0	
	24:0		898	119.4	100.4	104.0	137.0
		13	1620	79.4	50.0		
		14	2110	50.6	41.2		
		15	1475	25.4	16.3	106.0	129.0
		16	2185	33.7	55.0		
Case V		12/5/46	260	8.0	2.8	110.0	125.0
(F.M.P.)		6	365	9.1	6.3		
Portal		7	350	6.0			
cirrhosis		8	285	6.4	5.1		
		9	343	9.8	6.3	97.5	130.0
20 gm. NaCl I.V.	0:0	10				98.8	130.0
	1:20					111.5	130.0
	24:0		267	23.6	8.1	103.2	138.5
		11	350	12.6	3.9		
		12	290	15.3	4.7		
		13	410	16.8	3.8		
		14	325	19.5		100.4	117.0

Table I: Summary of data in three illustrative cases.

Case I: Patient with fibro-myositis exhibiting normal response to intravenous saline. After administration of 20 gm. of salt I.V. there is a urinary Cl. excretion of 183.2 m.eq. in the first twenty four hour period.

Case VII: Patient with portal cirrhosis and no ascites exhibiting moderately impaired response to intravenous saline. The first twenty four hour excretion of Cl is 119.4 m.eq.

Case V: Patient with portal cirrhosis and ascites exhibiting marked retention of salt after administration of intravenous saline. The first twenty four hour excretion of Cl is only 23.6 m.eq.

excretion on the first day may fall off to only 7 gm.

The one patient with hepatitis responded much the same to the test with salt as did the controls. This patient was studied at a stage of the disease when the disturbance in salt and water metabolism was subsiding. Other observations[6] made early in the course of hepatitis suggest that there is a significant but often subclinical salt and water retention.

Of the five patients with cirrhosis of the liver, two patients (Cases 4 and 5) demonstrated marked retention of salt and water. The excretion of salt even over a period of days after the adminstration of the challenge dose was only 5 to 6 gm. Cases 4 and 5 illustrate the characteristic limitation of salt excretion by patients with chronic ascites requiring repeated abdominal paracenteses, whose course is usually not reversible. A. E. N. is still receiving paracenteses at regular intervals as at the time of this study.

The other three cases of cirrhosis are of interest in that their response to salt administration was more normal than the first two cases. Case 6 showed a normal response which was in keeping with his clinical status. Case 7, who was studied after edema had cleared, showed an impaired response to salt, although not as severe as our first two cases. This patient remained under medical observation for five months and there seemed to be a correlation between the impaired ability to excrete salt and his clinical course. The third patient in this group, Case 8, although not treated for as long a period as Case 7 exhibited a similar response to salt and apparently was alike in clinical course.

DISCUSSION

Some of the numerous factors involved in the production of edema are portal hypertension, an anti-diuretic substance, the relative oncotic pressures of plasma and ascitic fluid. The cycle of events leading to the production of edema and the characteristic ascites of hepatic decompensation can at this time be described only in terms of the few known factors involved. No distinct relation between the presence of edema and serum protein levels were found by us and other investigators.[14,15] Yet in some instances the fact that the administration of human serum albumin is important in reducing ascites has been shown by several investigators.[16,17] We have had a similar experience.

The anti-diuretic substance demonstrated in the urine of cirrhotic patients has already been mentioned.[14] A physiologically similar substance has been demonstrated in the urines of patients with Bright's disease, Cushing's disease, premenstral edema, eclampsia and in uncomplicated dehydration.[18,19] It is possible that this substance plays a part in other states of salt and water retention such as congestive heart failure, nutritional edema, and perhaps even myxedema. It has not been reasonably demonstrated that the anti-diuretic factor is specific in cirrhosis of the liver.

This study has suggested to us that the mechanics of salt and water retention in congestive heart failure and decompensated cirrhosis may be similar, as far as the kidney is concerned. It has been shown that reduction in renal plasma flow and glomerular filtration rate were the fundamental factors in retention of salt and water in heart failure.[20,21] Patek, et al[22] found these to be normal in three patients with decompensated cirrhosis, but all three patients showed a significant rise in glomerular filtration and plasma flow after therapy with human serum albumin. Borst[23] emphasizes the importance of lowered blood volume and lowered cardiac output in the retention of salt and water by the kidneys. He believes that in cirrhosis of the liver the obstruction of flow in the portal system causes insufficient venous return and lowering of the cardiac output. In patients with cirrhosis, he believes the diuresis caused by injecting the patient's own ascetic fluid is the result of the increase in blood volume and cardiac output.

McKee, Whipple, et al[24] produced ascites in the dog by constricting the vena cava above the diaphragm. They state: "This type of experimental ascites drains the body protein reserves, reduces the level of circulating plasma proteins, and in effect is an internal plasmapheresis. High protein diet tends to decrease the ascites but the protein content of ascitic fluid may increase. Sodium chloride increases notably the volume of the ascites which accumulates and the total ascitic protein output increases. High protein diet low in sodium salts gives minimal ascitic accumulation under these conditions." This data supports the contention that salt limitation is of value in the management of the decompensated cirrhotic.

From these studies and others, it has been

demonstrated that salt and water retention is small and of short duration in acute infectious hepatitis. Clinically, there is little reason to restrict salt or water in most cases of infectious hepatitis. Patients with cirrhosis have a more pronounced degree of aberration. Some patients (Cases 4 and 5) excrete very small amounts of salt. We believe that in such instances a low salt diet may be of importance in long term care. Our limited experience tends to bear this out.

The other three cases (6, 7, and 8) clinically resemble cases 4 and 5, yet they showed a lesser degree of salt retention. Salt restriction is of value in these instances also, but since salt tolerance improves relatively quickly the restriction of salt may be discontinued at an earlier date. It may be that the degree of salt retention is more closely correlated with the degree of portal hypertension than with any other factor. Since the evaluation of the degree of portal hypertension has always been clinically elusive, it may be that salt tolerance is a useful method of estimating portal hypertension.

SUMMARY

1. The excretion of a large dose of salt (20 gm.) administered intravenously was studied in two normal individuals, one patient with acute hepatitis, and five patients with decompensated cirrhosis of the liver.

2. Normal individuals given a large dose of salt intravenously, excreted about 50% in twenty-four hours, as measured in the urine, and the remainder in three to four days. There is a greater urinary excretion in cool weather. The normal ratio of sodium to chloride excretion is between .9 and 1.0. This ratio is maintained in cirrhotic patients.

3. Patients with acute heptatitis, after the first week of illness, do not retain significant amounts of a similar dose of salt. Salt restriction is only of minor importance in most patients with acute hepatitis.

4. Of five patients with decompensated cirrhosis of the liver, two demonstrated marked retention of salt. Salt restriction has a place in long term management of cirrhosis with ascites.

5. Three patients with decompensated cirrhosis showed a lesser degree of salt retention. Salt restriction in this type of patient is therapeutically indicated in the acute phase of illness, and may be discontinued when salt tolerance improves.

6. This study suggests that there is a fair degree of correlation between portal hypertension and salt tolerance. It may be that salt tolerance is a clinically applicable method of evaluating portal hypertension.

We wish to thank Prof. Smith Freeman for his suggestions and criticisms during the course of this study.

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Carcinoma of the Breast

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Consideration of statistics from various sources indicate that more than 17,000 Americans die annually from carcinoma of the breast, having lived an estimated average of 42 months after discovery of the lesion; about 4 percent of all adult women develop this fourth commonest of malignant diseases, responsible for 12 percent of all deaths from carcinoma. It seems reasonable to assume that there are between 60,000 and 70,000 patients living at any one time with breast carcinoma and that a majority of these depend upon the general practitioner or general surgeon for diagnosis and for definitive treatment. While collectively the experience of average physicians with breast carcinoma is large, individual experience outside large clinics is necessarily small; rough calculation on the basis of the above figures indicates that the average physician may expect to see one patient with breast carcinoma every 18 months, one with early carcinoma less frequently.

Avoiding controversy regarding numerous theoretic and technical variables considered to affect the success of surgical treatment, it may be stated with assurance that earlier diagnosis and more critical limitation of the use of extensive surgical dissection can improve postoperative survival rates. Earlier diagnosis depends upon increased patient-suspicion and earlier patient-discovery of lumps in the breast.

According to a recent cancer survey[1] about one-half of the adult population of the United States understand the significance of at least one cancer symptom; of this half, about one-third recognize the cancer-importance of a lump in the breast or elsewhere. This number exceeds, by from 40 to 1650 percent, the numbers recognizing any one other symptom. Relatively few of the individuals questioned in this survey had received their information from physicians. Yet lay knowledge of the proper method and periodicity of self-examination of the breasts, leading to the earlier discovery of abnormalities, can best be imparted by the physician examining supposedly normal breasts.

From the Hektoen Institute, the Breast Tumor Clinic and the Department of Surgery, Cook County Hospital, and the Department of Surgery, Stritch Medical School of Loyola University, Chicago.

Clinical investigation in the Breast Tumor Clinic is supported by an annual grant from The Doctor Jerome D. Solomon Memorial Research Foundation.

In previous paper[2] we emphasized the cancer-importance of the apparently innocuous lump in the breast; we wish here to emphasize the significance attaching to the complaint of lump. In a series of 500 patients consecutively admitted to our clinic with breast complaints, and later followed for at least one year, 313 complained of "LUMP" or "PAINFUL LUMP". Seventeen of these were found to have no breast disease, 45 to have diffuse densities, no dominant lumps. Two hundred fifty-one were found to have lumps distinguishable from diffuse granularities, nodularities and areas of increased density considered characteristic of the benign mastopathies. Our pre-biopsy diagnosis in 139 of these lumps was "benign lesion"; at biopsy 7 were found to have carcinoma. Among the 112 in whom the pre-biopsy diagnosis was carcinoma, 11 were shown at biopsy to have benign lesions. One hundred eight (34.5 percent) of the 313 patients with the complaint of lump had carcinoma; only 9 carcinomas were found among the 168 patients whose admission complaints had been pain, bleeding nipple, nipple discharge, painful swelling or rash. Lump or painful lump had been the initial complaint of 92 percent of our patients with carcinoma.

In addition to the finding of a lump, visible retraction signs (seen when earliest present only on manipulation of the breast) were significant though not pathognomonic for carcinoma. These signs, due to shortening of Cooper's ligaments, were dimpling, "plateau" sign, other contour changes, and changes in the nipples. The latter consisted of alteration in the level, in the axis of point, in the rhythm and degree of elevation on arm raising, the presence of eczema, ulceration or loss of elasticity. We have seen all these signs in connection with breast lesions shown later to be benign, as we have noted clinical findings considered characteristic of moderately advanced breast carcinoma occasionally to be associated with harmless lumps. Among our breast carcinomas without axillary spread (Group I) 31.5 percent had a pre-biopsy diagnosis of benign lesion because of the absence of findings other than lump. Errors would have been more numerous had the presumptive diagnoses proved erroneous at biopsy represented individual rather than group opinion.

During the progress of this evaluation of our diagnostic accuracy we have treated palliatively, and studied, numerous unfortunates suffering from hopeless carcinoma recurrent after radical surgery performed at our hospital or elsewhere. When data pertinent to these patients and upon which diagnosis and selection of operation might have been based was available to us, it had often been incompletely recorded. Hence we have been unable to attempt critical retrospective analysis of the causes of failure of what we presume to have been expectedly "curative" treatment. It is, however, our firm opinion that uncritical selection of the extent of surgical treatment shares responsibility for such poor results with erroneous or delayed diagnosis. We believe that whenever possible it is preferable to perform mastectomy of the indicated extent at the time the frozen section is reported positive. The indicated extent can be decided only if the operation then in progress has been preceded by thorough search for distant metastases and evaluation of local findings to attempt prediction of incurability. It is because we consider diagnosis and classification so closely linked that we present here our procedure in selection of the extent of surgical treatment. It is based upon opinion not entirely derived from our own material; we are indebted for much of it to the numerous authors who have suggested methods of clinical classification.

Remote metastases which can be discovered on physical examination are in the supra-clavicular, intercostal, para-sternal, inguinal and opposite axillary lymph glands, in the lungs, the opposite breast, the skeleton and the abdomen (falciform ligament, liver, pelvis). At present we "x-ray-survey" the skeleton from vertex to elbows and knees, with chest plates for both soft parts and bone, and with laterals of the spine, in an attempt to discover how extensive the x-ray examination must be in order not to miss the earliest asymptomatic bony metastasis of breast carcinoma.

Local findings characteristic of long duration or rapid growth of the tumor have been shown by Haagenson[3] to be associated with extremely low curability, hence reliably to indicate probable remote extension. We are convinced that use of the radical operation for lesions apparently Group II but actually in Group III unjustly worsens (statistically and in each individual's

experience), the reputation of what is, when indicated and properly performed, an almost perfect surgical procedure. We attempt careful clinical classification of each breast lump on the presumption that it may be carcinoma; even though we find no indications of remote spread, we do not select extensive resection as the surgical treatment of choice in the presence of the following local findings:

Extensive skin edema, (more than 1/3 of skin of the breast);
Inflammatory carcinoma;
En cuirasse carcinoma;
Ulceration of axillary nodes;
Edema of the arm, or
Tumor of more than 6 cm. diameter.

There are local findings of lesser importance in the prediction of incurability, also well-defined through retrospective analysis of the statistics of failure[4]. We consider any two of the following to constitute an absolute contra-indication to extensive surgery; fixation of the tumor to the chest wall; skin nodules near the tumor; edema of less than one-third the skin of the breast; ulceration of the tumor; axillary nodes if more than three are palpable, one is more than 3 cm. in diameter or they are fixed to chest wall or axillary contents; development of the tumor during pregnancy or lactation and a previous operation of limited extent.

Results observed in our clinic following extensive resections have been poorest with regard to rapid local and general recurrence, morbidity and mortality when in our opinion the foregoing criteria have been innocently overlooked or wilfully ignored. In the proper management of lump in the breast we regard thoroughness in attempted pre-biopsy clinical classification as second in importance only to early exact microscopic diagnosis by surgical biopsy. We have noted excellent although necessarily temporary improvement, (in patients whose disease was considered incurable), to follow x-ray and/or steroid therapy, or limited surgery (simple mastectomy) alone or in combination with one or both the former. However, when findings originally considered to contra-indicate extensive resection have changed or disappeared following these palliative efforts we have found the apparent changes in "curability" to be completely illusory.

We have used androgens for bony metastases in patients of all ages, and continued the treatments in some cases longer than two years. Estrogens have been used only for soft parts recurrences or metastases in women more than five years past the menopause. Our results, generally satisfactory, will be reported in later publications; at present we consider the steroids useful for palliation in advanced carcinoma of the breast.

Summary and Conslusions; Lump in the breast is recognized as suspicious by a larger portion of the public than recognizes the significance of any other cancer symptom. We have found the complaint of lump to be at least as significant for carcinoma of the breast as is the palpation of lump. Our group pre-biopsy differential diagnosis of lump has been too poor to justify delay in securing microscopic diagnosis by surgical biopsy. Knowledge of the demonstrable or predictable extent of the malignant disease should be available at the time biopsy is done if intelligent choice is to be made between extensive or limited surgical excision. Hence the use of the radical operation in expectation of long disease-free survival requires critical physicial and philosophic evaluation of prospective curability in each case of carcinoma of the breast. It is noted that the average physician, collectively responsible for diagnosis and treatment of a majority of the cases of carcinoma of the breast, has limited opportunity for retrospective analysis of his individual results with this disease. More frequent instruction of patients by physicians in the method and periodicity of self-examination of the breasts can improve results through earlier detection and diagnosis of lump.

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Results that are Obtained in Mass X-Ray Survey

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The aim of the medical profession is the ultimate eradication of tuberculosis. The accomplishment of this aim is beset with a great number of difficulties. However, it is agreed that to accomplish this purpose we must have efficient performance of the following procedure.

First, case-finding — that is the discovery of the case in its earliest stages.

Second, facilities for the medical treatment of the case, i.e. sufficient number of beds for care of patients.

Third, rehabilitation of the patient, which should start as soon as a diagnosis is made, then in period of active medical treatment and then through period of post, active medical treatment.

Fourthly, the maintenance of the patient's family until the bread winner can work again.

In this report we are primarily concerned in the first part, namely, that of case-finding. With the older methods of case findings where we waited until the patient had enough complaints to present himself to the doctor, our results were rather disappointing. We found about 80% of the cases in the far advanced cases; 16% in the moderately advanced cases and only 4% in the minimal cases. This proportion of the stage of the disease did not vary greatly, no matter how well informed the public or the medical profession became.

The reason for these disappointing results was in the nature of tuberculosis itself. Early cases do not have signs or symptoms. The need for the finding of the early case is noted when we consider that 95% of the minimal cases can be permanently controlled. Also from the public health standpoint, we have a great asset. The minimal case, as a rule does not transmit the disease to another person. So it can easily be seen that should we discover the great majority of cases in minimal stage there would be a marked reduction in the future cases of tuberculosis.

The advent of the miniature chest x-ray has given us a relatively cheaper method of group or mass x-ray. Under this method we hope to find tuberculosis in greater proportion in the minimal stages.

We wish to report such a community survey, the results and the interpretation of the results.

The mass x-ray survey is difficult, demanding specialization of group of workers and concentrated effort so that a universal x-ray of the community is obtained. After all this is done, what are the results? How many cases of unsuspected tuberculosis are found, in what stages are they, are they active or arrested, progressive or static? What age group will have the greater percentage of active cases, of arrested cases? This we will be able to show at this meeting but the ultimate story can not be told unless we have follow up of all suspect cases found in the survey for at least five to ten years.

The follow up of the diagnosed case, whether it is active or arrested, is of supreme importance. All resources of the community, therefore, are coordinated in the one common effort of bringing the patient suspected of having tuberculosis in contact with his family physician, or if this fails, with the public chest clinic.

Many authors have emphasized the difficulties present in attempting to differentiate the minimal lesion that will remain stable from the infiltration that develops progressive disease. Laboratory findings have been of little help in evaluating the prognosis of these cases.

The decision as to the type of treatment in the asymptomatic case, with negative sputum, only minimal x-ray findings being present, has been especially difficult. Mistakes in supervision vary. Needless removal of persons from the jobs and homes created serious economic and social

problems. Lax methods of letting the case progress until actual symptoms and positive sputum is defeating the purpose of the x-ray survey. The correct treatment of these cases takes the knowledge and experience of doctors who are especially trained in handling chest diseases.

I will now demonstrate to you in the following tables the results of our x-ray survey of Maywood-Melrose Park.

In Table 1 we note that in 14,998 x-rays only 1.5% or 236 show suspect pathology for tuberculosis. The possibility of finding other pathology is noted when we observe 490 or 3.3% of other pathology is found. This group is made

MAYWOOD-MELROSE PARK
COMMUNITY X-RAY SURVEY
TABLE 1

Total X-rayed	14,998	
Essentially Negative	13,872	92.5 %
Suspect Tuberculosis	236	1.5 %
1 Suspect Tuberculosis	227	1.42%
2 Suspect Active Primary	9	.08%
Suspect Non TB Pathology	490	3.5 %
Unsatisfactory Films	400	2.70%

up of cardiac defects, bronchitis, bronchiectasis, tumor suspects, etc.

In Table 2 we take 236 suspect cases of tuberculosis and follow them up with a 14 x 17 x-ray of the chest. 39 cases did not return for follow x-ray no matter how many requests were made. Nine cases of failure to follow them is noted in the sub heading.

TABLE 2

Suspect Tuberculosis	236
Re-X-Ray by 14x17	195
Unable to X-ray	39
A. Died — Cardiac	1
B. Unable to Locate	5
C. Refused Re-X-ray	14
D. Resides Outside Community (No Report Available)	19
No Report from Private Doctor	4

In Table 3 the 195 cases after examination by 14 x 17 and sputum test, and physical examination we were able to find 114 cases which were definitely reinfection type of tuberculosis. On the follow up 69 proved to be negative. This indicates the pathology found on the miniature x-ray should only be considered as suspicious, and no final diagnosis be made unless a follow-up x-ray be done.

TABLE 3

Suspect Tuberculosis Re-X-ray 14x17	195	
Negative	69	
Primary-Active	4	
Reinfection TBC	114	
Non Pulmonary TBC Pathology	7	
1. Pulmonary		2
2. Cardiac		1
3. Other		4
Unsatisfactory	1	

In Table 4 we further break down our suspect cases in the percentage as to stage of pathology. 81.9% are considered minimal stage, 17.2% moderately advanced and only 0.9% in the far advanced case. This percentage is a great improvement in the type of case found when we wait for signs and symptoms. The determination of activity from an x-ray is rather hazardous at the best. It is doubly so in the miniature x-ray.

TABLE 4

Suspect Reinfection TB	227	100.00
Minimal	186	81.9
Moderately Advanced	39	17.2
Far Advanced	2	0.9
Active Total	104	
Minimal-Active	86	82.7
Moderately Advanced Active	17	16.3
Far Advanced Active	1	.10
Arrested Total	123	
Minimal-Arrested	100	81.3
Moderately Advanced Arrested	22	17.9
Far Advanced Arrested	1	.08

In Table 5 we note the percentage as to stage on the follow-up x-ray. It is to be noted that the 69 cases that were negative on the re-x-ray were from the minimal group and therefore our percentage of minimal cases drop from 81.9% to 54.5%. Also the possibility of determining stage of activity or arrest increases when a clinical examination is performed.

In Table 6 it is noted that in the entire survey of almost 15,000 x-rays only 12 active cases of tuberculosis was found and of these 6 were previously known to the health authorities. The disposition of these cases indicate that patients will do what is expected of them if convinced of their pathology.

TABLE 5

		per cent
Reinfection Tuberculosis	114	
Minimal	62	54.5
Moderate Adv. Pulmonary TB	36	31.6
Far Advanced	4	3.5
Suspect	12	10.4
Active Total	12	
Minimal-Active	4	33.3
Moderately Advanced-Active	7	58.4
Far Advanced	1	8.4
Arrested Total	90	
Minimal Arrested	58	64.5
Moderately	28	31.1
Far Advanced	4	4.4
Suspect	12	

TABLE 6

REINFECTION TUBERCULOSIS ACTIVE

Sex	Male	6	Female	6
Race	White	9	Colored	3
Age	Under 15	1	Over 15	10
Stage	Minimal	4	Mod. Adv.	7
			Adv.	1
Previous Knowledge	Known	6	Unknown	6
Disposition	Admitted to Tuberculosis Sanitarium			4
	Under Care of Pvt. Doctor			4
	Under Clinic Care			3
	Home Care			1

In Table 7 we noted that the active cases are mostly found in age group of 15 years to 29 years. The arrested cases are noted in 29 years to 60. Surprising amount of pathology is found in people over 60 years of age.

In summary, it can be said

1. That the yield of active cases from such a survey is rather small but nevertheless profitable. That most of the cases in this group are under medical treatment. Also that they are under control and the spreading of tuberculosis is controlled.

2. That the active cases as a general rule are found in the younger age group and that most of the arrested cases are found in age group of 34 and up.

From this we can presume that many people have tuberculosis of the reinfection type without knowing about it. They control their infection without knowing anything about it. That these infections are of limited size because of the great percentage who have only a minimal amount of pathology.

3. That greater number of cases are found in the arrested stage. The follow up of this group for a period of about five years should give us an index of what happens to the so-called innocent type of lesions. I believe that close observation of this group is essential and by doing this we will greatly enhance the value of the mass x-ray procedure.

TABLE 7

14x17 SURVEY X-RAY TB PATHOLOGY

Activity Stage	Under 15 yrs	From 15-29	From 29-60	Over 60
Activity Total	0	8	3	1
Minimal	0	3	2	0
Moderate Adv.	0	5	1	0
Far Advanced	0	0	0	1
Inactive Total	1	9	65	15
Moderate Adv.	0	1	20	3
Far Advanced	0	0	5	4
Suspect Total	0	3	8	0
Minimal	0	3	8	0
Moderate Adv.	0	0	0	0
Far Advanced	0	0	0	0

4. The breakdown in age groups clearly demonstrates that a great deal of tuberculosis is found in the older groups. That this disease will become active, under adverse living conditions, is clearly demonstrated when we examine our sanatorium population and note the number of active advanced cases found.

5. We have not tabulated the nontuberculosis pathology found in this survey because we wished to limit ourselves to the tuberculosis problem. However, a great number of nontuberculosis cases have been found and these are reported to their private physician for medical care.

Equatorial Africa — Six Months of Adventure

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Max Samter, M.D.

Dr. Samter: Only beginning and end of today's Seminar is a travelogue. It is true that Dr. Birch left for an ocean voyage on the M.S. Triton last June shortly after the AMA convention. It is true that she marveled at the full moon reflected in tropical waters, flying fish, dolphins, Portuguese men-of-war, sharks and spouting whales. Beyond this, however, is a fascinating tale of the strange land, only a few hours of flight from our own. Dr. Birch has looked upon Equatorial Africa with many eyes — the eyes of a scientist, the eyes of the American used to modern technology, the eyes of a woman, and the eyes of a poet.

Dr. Birch: Our first port was Dakar. The wharf was like a picture out of the National Geographic Magazine. There were Africans in all stages of apparel from loin cloth to complete European dress. Some wore only dirty, torn rags. Many Mohammedans added picturesqueness to the scene with their long flowing robes of white and blue and turbans on their heads. Government harbour officials in white uniforms and brass buttons added a degree of dignity. The wharf scarely afforded standing room it was so crowded. The word "Dakar" comes from two old French words which mean "port of slaves." Just off the coast is the Island of Caree. Here the slaves were held until they boarded ships for America. Slaves houses with dungeons and chains still stand on the island as grim reminders of a black past. To this day in many parts of Africa "going west" the direction of the slave trades means "to die" and after death bodies are buried in a sitting position facing east.

We made stops of two to four days at a number of ports including Freetown, Monrovia, Port Palmas, Conakry, Takoradi and Lagos. There was time to visit hospitals such as the Firestone Hospital at Port Palmas and the Rockefeller Yellow Fever Center at Lagos.

Next was my port of debarkation, Douala, port for the French Cameroons. I spent the next two months in Bululand at the Presbyterian Mission at Elat. The hospital here is the best for miles, yet it differs greatly from ours. There are electric lights in the operating room but the wards are without artificial light except for the occasional lantern owned by a patient. There is no running water and no diet kitchen. Each patient brings one or more persons to cook for him and otherwise provide for his needs. A shed serves as a community kitchen where food is prepared and cooked over wood fires. If the patient is a headman, the entire village may come to the hospital with him. Diagnoses are made chiefly by employing the five senses of the examiner. Laboratory work is minimal. It is gratifying to realize how much can be done without extensive laboratory work.

Patients in the 225 bed hospital and the dispensary present many of the conditions of the temperate zone plus most of the tropical diseases, leprosy, schistosomiasis, Loa loa infection and other filarial worms, many of the intestinal worms, yaws and other bacterial infections. Pulmonary tuberculosis is virulent. The degenerative diseases are few and mild such as diabetes and visceral carcinoma. This is partly explained by the scarcity of older people and partly by the tropical climate. The warm, year round tem-

perature lowers the physiological indices. Blood pressure and basal metabolism are low; pulse rate is slow; vital capacity is about half that of the temperate zone.

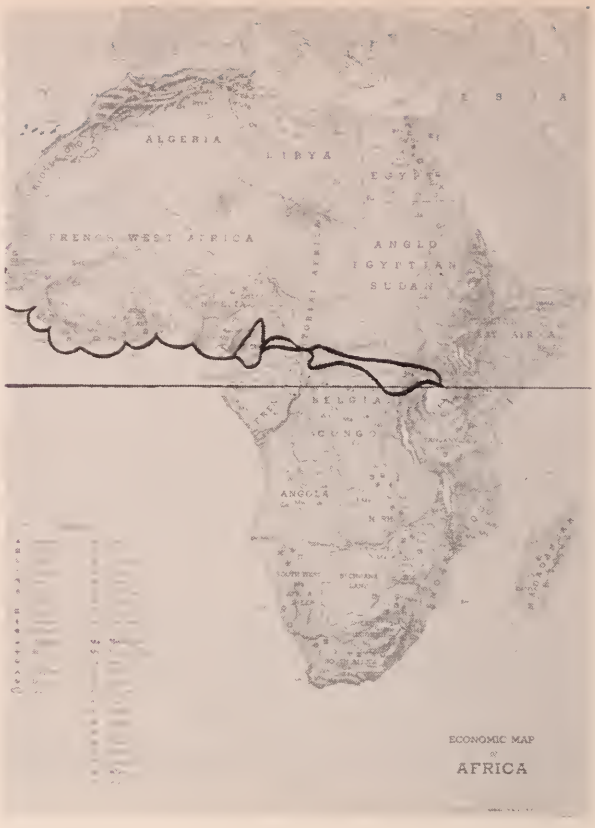
I visited several other Presbyterian mission hospitals in the Camerouns including Bafia where the government has a hospital for African Sleeping Sickness. This was my first experience with this tropical disease which is limited to the continent of Africa. African Sleeping Sickness is transmitted by the Tsetse fly and is found only in those regions where the fly breeds. These are known as fly belts. The patients were in all stages of the disease.

In Africa I met a charming missionary nurse. We joined forces and in her car we drove over 7,000 miles across Equatorial Africa. This is said to be the most unhealthy region of the world. It is sometimes called the "white man's grave." Africa is said to kill her lovers, her friends and her invaders. In this part of the world you protect yourself by limiting and inhibiting your own actions. you do not modify the attacker. The traveller can be immunized against small pox, typhoid, yellow fever, typhus, cholera and tetanus. There is little or no immunity against the protozoal and helminthic disease. Our car was screened, we carried D.D.T. and insect repellents and dressed to protect against mosquito and fly bites.

We entered the Belgian Congo at Libenge. Most of our nights were spent at missions where the food and water are safe. In fact, the missions are islands of religion, sanitation, beauty and education. It would be well nigh impossible to travel in Equatorial Africa without the aid of the missions. Stops were made at numerous mission and government hospitals. We crossed the Equator several times and drove through the beautiful Ruwenzori Mountains. Our car was piled high with food and equipment but we carried no guns and had no guides.

On a safari into the jungle to visit the pygmy villages we employed local guides. The pygmies are very primitive, live in tiny poorly constructed houses and wear nothing but loin cloths. They occupy the lowest rung on the human ladder of life.

Our easterly destination was Entebbe, one of the British Tsetse fly control stations on Lake Victoria. Enroute we stopped at two large cities, Stanleyville and Kampala where we stayed in



modern hotels. We returned by a more northerly route crossing the Victoria and Albert Nile Rivers.

Infant mortality is high in this region, it averages about 50%. In some places infants are given no food for six days after birth. All deformed babies and multiple births are put in the bush to die. The patient's complaints are a weird assortment of witches and worms, evil eyes and curses. Along the roads many wear charms to prevent leprosy, small pox and attacks by crocodiles and gorillas.

One of the mission doctors introduced me to a real medicine man from whom I procured two of his masks. His armamentarium consists of skulls of monkeys, cats and horses, baskets of assorted jaw bones, bird claws, feathers, porcupine quills, dried lizzards, frogs and snakes, skins and horns of animals. Each of these or a combination of several will protect against demons or cure pain. Medicine men rarely treat disease itself but they appease the spirit of disease. In other words, they have their herbs and some of them are good but real cure as they see it comes from the spirit world. They are specialists in magic.

We returned to Donala and waited several

days for the boat to bring me home. It was a wonderful trip. When I think of it now it has the peculiar fabric of a dream. During the day, while I work soberly on routine chores, I find myself thinking of slim, black and well greased bodies, ornaments on arms, legs, nose and lips, the inspirational singing of the leper choir, the call of the drums at night, the palaver house, the camp fire, the smell of dried fish, the many uses for banana leaves, the swishing of grass bustles, the skinning of the spotted leopard at Bafia, ballet skirts of leaves and ferns, pot bellies full of malarial spleens, the regal elegance and classic beauty of tatoo and beads.

My thoughts are a mingled mass of merriment and murder, shadow and superstition, pain and the primitive, squalor and splendor, dirt and dignity, bravery and barbarism, grace and grime, spirits and smells, lice and lepers, humor and hookworm, mosquito nets of numerous designs and baths of many sorts.

(Editorial Note) Dr. Birch's Seminar was illustrated by a large number of beautiful lantern slides in color. The prohibitive cost of reproduction makes it impossible to include illustrations in the Seminar. We thought, however, that the photograph of a map which she used during her travels might add to the enjoyment of her presentation.

Strange Ways in Which the Allergic Mechanism is Altered

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Allergic disorders are sometimes favorably influenced by other conditions, which may by themselves be deleterious to the general health of the patient. For example, Dr. P. Hench of the Mayo Clinic reported a number of cases in which Hepatic Trauma associated with Jaundice alleviated Rheumatoid arthritis. I have had similar experience with cases of Hay Fever and Bronchial Asthma. The patients were symptom free during the period of jaundice. These are clinical reports, but unfortunately there has not been enough attention paid to these evaluations: merely because no ready explanation is forthcoming from the experimental laboratories.

These clinical observations lead us to the following questions:

1. What do these observations mean?
2. What can they teach us in the management of allergic or other diseases?
3. How are these disturbances related?

With this in mind, I am suggesting a hypothesis for the allergic phenomena derived from and based upon clinical evidence, which is as follows. Allergy-prone individuals are a definite pattern of mankind. They are born with a constitution that is inadequate. The nervous system is the most offended tissue and may be responsible for the allergic reaction. The tissues are readily influenced by internal or external environment. Repeated and prolonged irritation by specific factors such as proteins, emotions, atmospheric disturbances, etc. will provoke changes in the internal environment which the inadequate constitution cannot correct. These changes are characterized by an inbalance in tissue function due to a biochemical disturbance resulting in an abnormal reaction. If the irritability is mild, it will result in minor symptoms. If the irritability is greater and prolonged, it will produce major symptoms. If the irritation is severe and constant, the patient will develop severe and dangerous symptoms, which frequently cannot be controlled with any form of therapy. However, if the irritation can be removed or, for some unknown reason ceases to be effective, the tissues become stabilized and the patient becomes symptom free.

A careful study of the patient as a whole is most important, including his personality, behavior and emotional life, and is at times of greater value than laboratory procedures. I wish to make it clear that I am not underesti-

mating the value of skin tests: they are, perhaps, of no lesser value than E.K.G.'s in heart disease. They are equally good servants but poor masters. Skin tests sometimes indicate whether or not an allergic condition exists in the skin, but they do not always indicate that a similar condition exists in other tissues or organs, and almost as frequently the skin will fail to react to a specific irritant yet the patient will develop allergic symptoms when exposed to it. There are no allergens available for testing when we deal with an emotional disturbance or a psychological block to any particular environmental factor, yet we know it to be a fact that any one of them may bring on an attack of asthma or a severe case of urticaria. Many of the problems arising in allergy are not well explained on the basis of existing theories or present-day knowledge, but clinical and investigative observations have fortified my belief that allergy is a constitutional inadequacy. To illustrate my hypothesis, I am presenting clinical evidence as observed in the study of our patients, and for the purpose of clarity I have separated these cases into various groups with comments on each.

NEURO-HUMORAL FACTORS

Case No. 1—A male patient, age 38, with a history of hay fever for the past fifteen years was well controlled with pollen therapy. In August, 1945 he developed symptoms of hay fever complicated by bronchial asthma. He complained of being tired, drowsy, and of having constant headaches. His symptoms became progressively worse until he finally became comatose. All available tests and laboratory findings were essentially negative, with the exception of increased pressure in the cerebro spinal fluid. He slowly regained consciousness and became symptom free. On several occasions following this upset he has been thoroughly examined by competent neurologists for any evidence that could have determined the reason for his loss of consciousness, and the only possible explanation offered was that the patient developed a cerebral edema due to pollen toxicity.

Case No. 2—Male patient, age 44, who has had hay fever and migraine headaches for a period of twenty years. He was not able to tolerate pollen therapy in the weakest dilution without developing systemic reactions. He therefore spent the hay fever seasons in the far north with fairly good results, although not completely free of symptoms. In 1946 he remained at home, and with the aid of antihistaminic drugs was fairly free of hay fever, but there was no effect on his migraine. In April, 1947 he developed jaundice from a carcinoma of the liver, which became progressively worse. During the months of August and September he was completely free from hay fever or migraine headaches, although on skin tests at this particular time he gave a four plus reaction to ragweed. For experimental purposes he was given 2,000 units of ragweed pollen intramuscularly without developing any systemic reactions. The patient died as a result of the carcinoma of the liver.

An interesting observation in the first case is the sudden loss of consciousness. This occurred after several days of exposure to ragweed pollen with typical symptoms of hay fever complicated by bronchial asthma. Upon skin tests the patient gave positive reaction to ragweed pollen indicating that he was constitutionally a hypersensitive individual. The possibilities of intracranial disease or systemic infections were ruled out by physical and laboratory procedures, but apparently the removal of spinal fluid, relieving intracranial pressure, resulted in immediate recovery. His medication prior to lumbar puncture consisted of epinephrine by injection, and dextrose and aminophyllin intravenously at frequent intervals, which gave only partial and temporary relief.

The second case is of greater interest and an incentive for further investigations which could lead to a new concept in the field of allergy. His hay fever symptoms were definitely due to ragweed, which was substantiated by skin tests. His migrainous headaches which occurred at periodic intervals were probably due to some irritation of the nervous system. When the patient developed jaundice, he was free from hay fever and also from migrainous headaches. From these observations one may assume that jaundice could invoke an anti-allergic status and control hay fever symptoms, but his migrainous headaches, which had no allergic basis, were also controlled. This led me to believe that the nervous system was an influential factor in both conditions. But if the unknown factor in jaundice was influential in controlling his migraine, the trigger mechanism for the allergic reaction would also be in the nervous system, as it likewise controlled his hay fever.

INFANTILE ECZEMA

The relation of infantile eczema to allergic factors is often obscure. The mechanism producing it does not appear at hand, nor is the hope for therapy very encouraging. The theory of over-exposure is not satisfactory, and we are not able to reproduce it experimentally. Our observations are that most of the spells will clear up before the age of three without therapy, although their exposure to the same irritants is

not interrupted. Although their skin is dormant their allergy is only in a state of quiescence, which is proved by the fact that most of them will develop some other form of allergy in their later years. In view of the fact that asthma is frequently preceded by infantile eczema, we may be justified in concluding that they are of a similar pattern and could have a similar etiological factor, but from a therapeutic standpoint they are not the same and differ in their responses.

A case of interest is that of a woman patient, age 29, with a history of infantile eczema which began at the age of six months and cleared at the age of 3 years without therapy. At the age of 19 she developed a generalized dermatitis. Medical management for a period of 2 years failed to improve her condition. She became pregnant and her dermatitis immediately began to improve and cleared before delivery. Two weeks post-partum her dermatitis recurred and remained for a period of two years with no response to any form of therapy. She again became pregnant and her dermatitis again cleared completely, only to recur two weeks following her second delivery and then remained for a period of seven years without any relief. She became pregnant for the third time and her dermatitis again cleared up, only to recur five days following her last delivery but with greater severity than at any previous time. She gave positive skin tests to ragweed pollen and house dust with no exacerbation of symptoms during the pollen season. The children born to this patient are of clinical signficance. The oldest child, a female, developed infantile eczema two weeks following birth: the skin cleared at the age of three years without therapy. The second child, a male, did not develop any eczema or any other form of allergy as of this date. The last child born, a female, developed eczema five days following birth.

A similar case which is being studied at present is that of a woman, age 22, with atopic dermatitis since infancy which has not responded to any form of therapy. Eight months ago she became pregnant and her eczema cleared completely. We await with interest the outcome of her eczema and that of the child to be born.

These observations are of interest and clinical significance. These patients did not respond to any type of management but on three different occasions in the first case and on one occasion in the second case they cleared with pregnancies. If the theory is sound that a mother who has been sensitized to some foreign protein will sensitize the foetus through the blood stream, what has prevented the male child from becoming sensitive but not the females? If the theory is logical and scientific that the foetus becomes sensitized by the mother, could the unknown factor desensitize the mother during the same period? What is the unknown factor, if such exists, that is lost with termination of pregnancy? From the above clinical evidence, it would appear that the child is born with a constitution that is inadequate, and when it comes in contact with an irritating environment it will develop atopic eczema. Therefore, it is logical to assume that the foetus in utero is responsible for a biochemical change in the tissues which desensitizes the mother. Most children with atopic eczema will recover from it before the age of three with or without therapy, although their exposure to the same irritants is not interrupted. Therefore, the theory of over-exposure is not the principal factor in allergy. Although the consensus of opinion is that removal of the offending substances will result in recovery, this is only partially true. The facts are that their tendency to eczema becomes dormant for a time, which may be due to a biochemical change that occurs during the period of growth, only to take on a different form of sensitivity at a later date, such as bronchial asthma. This is certainly not a chance occurrence because it prevails in more than half of our cases.

BRONCHIAL ASTHMA

Bronchial asthma has been a source of grief to the medical profession. It has attracted many of our master clinicians who have vigorously labored to find a solution, but up to the present they have not been successful. The application of skin tests, ophthalmic reactions, patch tests and passive transfers has in general proved very disappointing. Numerous ideas and theories have been so readily accepted as facts and so many unjustified claims have been made regarding benefits derived from such practice that the management of such allergic individuals has been very confusing.

A female patient, age 34, had bronchial asthma for a period of ten years. A careful history revealed that her attacks were not related to foods, environment or season. All laboratory findings, including X-ray of the chest and gastrointestinal tract, were essentially negative. Skin tests to all allergens, with the exception of house dust, were also negative. The patient was a very nervous type, complaining of headaches, gastrointestinal disturbances and fatigue. She had a neurodermatitis for a number of years which did not respond to any therapy. She was placed in a dust-free environment and treated with dust extracts and mild sedatives when indicated. She responded fairly well for a number of months when suddenly, and for no apparent reason,

she became progressively worse and for several months did not respond to any therapy. She journeyed to a doctor in the south and with the aid of drugs only she was fairly free from her attacks for several months, but then these recurred with greater severity than at any previous time. Her nervousness became uncontrollable and within a period of a year she became insane and was committed to an institution. An interesting observation of this case is that while in this mental state she was completely free from asthma.

The second case is that of a female, age 34, weighing 104 lbs. with a history of bronchial asthma for the past two years. Her attacks were worse in August and September. The only relief obtained was from the use of epinephrine. Skin tests gave positive reactions to ragweed and dust, although a careful history failed to uncover any definite symptoms of hay fever. In order to give the patient the benefit of doubt, she was treated with pollen and dust and epinephrine when indicated. She began to improve and was fairly free from asthma for four months. In 1943 her husband was inducted into the Navy. She immediately developed severe attacks of asthma with no response to any medication. She was hospitalized and her condition became progressively worse and serious. Upon request, her husband was released from the Service. She began to improve, although her medical management was not altered. They moved to Arizona and remained there for a period of ten months, and although under constant medical care she failed to show further improvement. The patient then returned home and was placed on a regime similar to that employed prior to her departure for Arizona. She began to improve, and for period of two months was in fairly good health, although she had to rely upon epinephrine inhalations at frequent intervals. About this time the War ended: the patient began to show rapid improvement, and all medications were discontinued. She gained weight and has been free from asthma for a period of one year.

From the history of the first case we note that the patient's attacks were not related to any specific factors. Skin tests were all negative, except to house dust, for which she was treated with some improvement for only a short period. For no obvious reasons her attacks recurred with greater severity. A change of physicians and management was responsible for a temporary improvement. Apparently specific or non-specific therapy was of no benefit to this patient, but a change of environment and a change of doctors had a psychological effect, stabilizing her nervous system and creating a dormant situation, but when the condition became irreversible she became mentally unbalanced but also asthma free.

Our second case is of a similar nature. This patient also responded to specific therapy for only a short period. A change to a different environment and a change of management did not benefit this patient, but a change of circumstances, which gave her security, did stabilize her nervous system and she became asthma free. The length of time this patient will remain free from asthma remains to be seen.

THE PSYCHOSOMATIC AND PSYCHONEUROTIC FACTORS

The psychosomatic and psychoneurotic factors do, without a doubt, influence the allergic patient. Comparing the psychoneurotic and the allergic phenomenastimuli and reaction — we find as a cause something that is relatively harmless to normal individuals. The salient point to psychroneurosis as an allergy is that we are dealing with a particularly reactive and sensitive individual, with reactions in organs or tissues by which nature seeks an outlet. There are relations of the allergic to the psychoneurotic as shown, for example, by the fact that hay fever, in a case of rose pollen sensitivity, was produced by the sight of a dust cloud on a movie screen, or an asthamtic attack precipitated by an emotional upset. We are made to believe that the allergic reactions are due to an antigen antibody reaction, but can this theory be applied to the emotions? It is a fact that shock or emotion will produce change in the internal arrangement of the nervous system, for example, insulin shock. The following case reports indicate that emotions or shock will precipitate an asthmatic attack in some and abate it in others.

A male patient, age 29, had a history of bronchial asthma for the past five years. His attacks were aggravated in the fall. Physical and laboratory findings were essentially negative. Skin tests gave positive reactions to ragweed, grasses and dust. He was well controlled for a period of two years. In the fall of 1947, while at work, a tree close by suddenly broke and fell in his direction. He became frightened and could not move away to protect himself. He began to wheeze and developed severe asthma which lasted three days, requiring the use of epinephrine and sedatives.

Another case is that of a male patient, age 35, with a history of bronchial asthma for the past ten years. Laboratory and X-ray findings were essentially negative. Skin tests to allergens were negative. He was managed symptomatically with no relief. He tried every form of therapy that was ever prescribed or advertized, without much benefit. The only partial relief he obtained was from the use of epinephrine. Several weeks ago he was in an automobile accident, injuring his knees, legs and back, with a few small lacerations on his face. For a period of two weeks he was completely free from asthma but when he recovered from his injuries his asthma recurred.

DISCUSSION

The two cases of bronchial asthma I have described are interesting and instructive. The first case gave specific reactions to ragweed, grasses and dust and with specific management he was well controlled. Sudden shock to his nervous system precipitated an asthmatic attack, and only when his nervous system was stabilized, mostly by rest and sedatives, did his asthma abate. He has been free ever since.

On the other hand, the second case gave no reactions to any allergens and therefore specific therapy could not be applied and all other forms of therapy had been tried without success, but sudden shock to his nervous system gave him complete relief which lasted two weeks and when he recovered from his shock his asthma recurred. Modern physiologists tell us that fright will increase the output of epinephrine and, therefore, should relieve the asthmatic attack. How can we apply the same theory to our first case, which precipitated his asthmatic episode? However, we must admit that the nervous system was the influential factor in both cases. Therefore, the only logical explanation is that shock could produce a chemical change in the nervous system, resulting in a hyper-activity and precipitating the asthmatic attack, or shock could result in a hypo-activity and therefore abate the attack.

Hypnosis has been used by many with success in a great number of cases. Psychotherapy, which is practised, wittingly or not, by most modern allergists, has claimed success when all methods have failed. All of this is in sharp contrast to our present data and knowledge pertaining to antigens and antibodies, which has not offered a satisfactory explanation nor has it been practical in its application. There are a great number of patients with syndromes of eczema, asthma or urticaria, in whom demonstrations of immunologic allergy are different and frequently impossible.

A paper was recently published describing a very interesting experiment by Dr. Hans Selye and his team of biologists at the University of Montreal, in which animals were subjected to sub-lethal stress with the same agents for several weeks instead of a few days. During the first few days the organisms responded with the usual alarm reaction and showed the typical organic and chemical changes: growth and sex changes ceased and all signs of an intense tissue breakdown were present. As the stress continued unabated, the animals that survived the alarm reaction began to recover. The adrenals started to refill their empty stores with lipid and reverted to normal size. Dr. Selye also maintains that the adrenals do not act independently, like other endocrine glands, but are under the command of the anterior portion of the pituitary gland, and irritation of that gland may disturb normal function of all tissues or organs. If humans were subjected to these experiments, our findings would most likely be similar.

In recent years the realization that histamine is partially responsible for the allergic reaction has led to the development of antihistaminic drugs. In experimental and clinical trials they were found to be effective in many cases of hay fever, urticaria and other allergic conditions, but were of little appreciable benefit in the asthmatic or many other allergic conditions. Their action is not well understood, with the exception that they have a definite effect on the nervous system which has been observed by the following side reactions — sedation, dizziness, weakness, restlessness, difficulty in coordination, nervousness and, infrequently, numbness of the upper or lower extremities. Their action is also that of a potent local anesthetic. From the above statement, we are justified in concluding that in controlling many of our allergic diseases we are primarily influencing the nervous system. This is emphasized by the sedation that occurs with most of the antihistaminic drugs.

Up to the present time medical science has not succeeded in giving us a satisfactory understanding of the problem of allergy. I have, therefore, offered a hypothesis which is based on synthesis and analysis as I have applied them to my clinical observations in many years of practice. I maintain that allergic individuals who are born with a constitutional inadequacy and an abnormal nervous system which, when influenced by specific irritants, shock or emotion, will result in a biochemical disturbance of the neuro-humoral system and will produce a hyper- or hypo-activity and precipitate the allergic reaction or terminate its effects. I do not claim to have exhausted the subject or to have done away with the necessity of other ways of studying the problem. I also do not advocate the abolishment of our present methods of treatment unless and until we find better ways and means of therapy.

If research in the field of allergy will include the study of disturbances of the neuro-humoral system and methods of control, it may bring about a new hope in the treatment of allergic diseases.

Professor J. F. Brock, M.D., F.R.C.P. of England, in a presidential address to the Cape Town Medical Society in 1946, made the following statement: "Those who approach the allergic disorders from the point of view of agents such as protein or bacterial sensitivity will never be able to understand or treat them adequately. These disorders can only be understood when we think in terms of constitution, and it is very likely that inadequecy plays a part in their genesis."

CONCLUSIONS

Case histories are presented in an attempt to offer an explanation of allergic reaction in certain individuals. From the clinical evidence presented, we are justified in concluding that allergic individuals are a distinct pattern of life and are born with a constitutional inadequacy which is not able to correct itself under all circumstances. When these individuals are exposed to certain irritants a biochemical disturbance takes place in the neuro-humoral system, producing a hyper-activity resulting in the allergic phenomena.

These conclusions are based upon the following findings:

1) Laboratory procedures and skin tests were unreliable in establishing the etiology in most of our cases.
2) Shock or emotions were influential factors in precipitating the allergic reaction in some or abating it in others.
3) Removal of spinal fluid, thus relieving cerebral spinal pressure, terminated cerebral edema and bronchial asthma.
4) Sedatives influencing the nervous system were necessary to control allergic symptoms.
5) The beneficial effects of hypnosis and psychotherapy in controlling allergic symptoms cannot be disputed by anyone.
6) Atmospheric disturbances and its influence on allergic individuals is a known fact. The behavior of which is most likely an emotional instability.
7) The influence of the sympathetics and parasympathetics on the allergic response is a physiological fact.

Since this article was written I have been experimenting with adrenal cortical hormone in allergic diseases. Observations of its effects are of profound interest and coincide with the hypothesis of this article. Findings will be published at a later date.

USE AUREOMYCIN AGAINST INFLUENZAL MENINGITIS

Favorable results from treating seven patients for influenzal meningitis with aureomycin are reported by a group of doctors from the University of Maryland School of Medicine, Baltimore.

The disease is an infection of the membranes which envelop the brain and spinal cord and is not caused by the microbe responsible for ordinary influenza.

"Aureomycin therapy was followed by fall of temperature to normal levels within 96 hours after the initial dose," Drs. Miles E. Drake, J. Edmund Bradley, Jerome Imburg, Fred R. McCrumb Jr. and Theodore E. Woodward write in the February 18 Journal of the American Medical Association.

"On the third day of treatment, abatement of such symptoms as mental dullness and convulsions was definite," the doctors say. "On the fifth day, the acute phase of illness had completely disappeared. The patients were plainly convalescent, with increased strength and return of appetite."

Former treatments for the disease, including administration of sulfa drugs and streptomycin, possess "clearly defined disadvantages," the doctors point out, adding:

"Clinical trial of aureomycin in these cases has led us to believe that it may represent a highly effective method of therapy in this type of infection."

Hip Disorders in Children

A Differential Diagnosis

Lyle W. Russell, M.D.
Peoria

Early recognition is of paramount importance in the successful management of most hip disorders in children. This fact has frequently been stressed in the writings of orthopaedic surgeons throughout the world. And yet how often today are children found walking at the age of two or three years with previously unrecognized congenital dislocated or subluxated hips! And how many dislocations result from lack of diagnosis and early treatment of pyogenic arthritis in the hips of infants! A slipping capital femoral epiphysis has frequently been overlooked at a time when it could easily be treated with a good result, simply because referred pain in the knee distracted the physician's attention from the hip. These, and many other undesirable conditions might be avoided by more accurate observations on the part of those who see children with hip disorders in the early stages.

The hip disorders most commonly seen in children may be divided into three groups according to their etiological classification as follows:

I. Congenital
 A. Dysplasia
 1. Subluxation
 2. Dislocation
 B. Coxa Vara
II. Infections
 A. Transient Synovitis
 B. Septic Arthritis
 C. Tuberculosis
III. Developmental
 A. Coxa Plana (Legg-Perthes' Disease)
 B. Epiphyseolysis
 C. Bone Tumors
 1. Benign
 a. Osteochondroma
 b. Osteoid osteoma
 c. Fibrous dysplasia
 d. Eosinophilic Granuloma
 2. Malignant
 a. Osteogenic Sarcoma
 b. Ewing tumor

Hip Dysplasia.—While the term "dysplasia of hips" has long appeared in foreign literature, it is only recently that it has been generally accepted by American writers. It denotes a flat, shallow acetabulum which has formed during embryonic or fetal life. The articular surface of the head of the femur may lie entirely within such a socket, or only partially (subluxation) or not at all (luxation or dislocation). Since there are no subjective or objective signs associated with the first condition it can be detected only in the event that an x-ray is taken for some other reasons, e.g. clinical evidence of a dislocation in the opposite hip.

On the other hand, a dislocation may be recognized quite readily, even in the infant who has not yet started to stand up. This can be accomplished during infancy, however, only by careful physical examinations. The hips should be examined not only at birth but also a few months later. In unilateral dislocation it may be noticeable that the affected hip is more prominent than the opposite one and that the leg is shorter. This may be demonstrated by having the infant lying on his back and flexing the thighs and the knees so that the soles of the feet are flat on the table. The knee of the affected side will be lower than the opposite one. Limitation of abduction can be noted quite readily. By alternately pushing and pulling on the leg a "piston" motion, or telescoping of the femoral head, may often be demonstrated. Asymmetric skin folds are usually observed.

Bilateral dislocations may not be so noticeable in the infant, since there will be no asymmetry of skin folds and leg lengths, nor prominence of the hips. However, a careful examination will reveal the bilateral limitation of abduction and the "piston" motion of both hips.

When the child begins to walk, there should be no difficulty in making a diagnosis of dislocated hip. The child usually has no complaints except that she may fatigue easily on exertion.

Occasionally overactivity may produce a slight pain. A unilateral dislocation results in a distinct limp which is non-painful. The child with a bilateral dislocation walks with a "duck waddle" type of gait, has broad buttocks, an increase in the lumbar lordosis and a protrusion of the abdomen. All the objective signs previously mentioned may be observed in either case and in addition a positive Trendelenberg sign can be demonstrated. This consists in having the patient stand on the affected leg and raise the opposite foot off the floor. Because the femoral head is not in the acetabulum to act as a fulcrum, the glutei muscles cannot tilt the pelvis down on the affected side as occurs in a normal hip.

A diagnosis of subluxation of the hip is rarely made in the pre-walking stage, except by roentgenograms. In some European countries, where the incidence of hip dysplasia is very high, infants are routinely x-rayed in many clinics and a large number of subluxations detected. After the child starts walking, the same objective findings may be noted as are found with dislocated hips. However, they are much less in evidence and the telescoping of the femoral head usually cannot be demonstrated.

The x-ray appearance of a dislocated hip is quite conclusive, especially after the third or fourth month of life when the nucleus of the head is visible. Interpretation of the roentgenogram in a subluxation may be more of a problem, particularly in the infant. But the points to be looked for are as follows: (1) an irregular Shenton's (obturator-coxo-femoral) line (2) increased joint space (3) a sloping roof of the acetabulum with a shallow socket (4) delayed development of the center of ossification of the femoral head and (5) slight displacement of the femoral head from the socket. The latter may be difficult to determine except by a method such as that of Bruce. Draw a horizontal line through the clear areas which represent the triradiate cartilage and a vertical line through the edges of the acetabular roof. Normally the epiphysis of the femoral head lies medial to the vertical line and below the horizontal. In a subluxation it lies below the horizontal line but lateral to the vertical and in a dislocation it lies both above the horizontal line and lateral to the vertical.

Coxa Vara.—The symptoms of congenital coxa vara are variable, but never make their appearance until walking begins and often are delayed for several years. A limp, slight pain and stiffness are the usual early objective findings. The onset is usually insidious but sometimes occurs after a slight trauma. On examination, one notes a restriction of abduction and internal rotation, while adduction and external rotation are increased. There may be some tenderness about the joint, but no swelling, redness or increased warmth. Pain is often elicited by manipulation of the joint and may be referred to the knee. As the deformity progresses the greater trochanter becomes prominent, shortening occurs and an external rotation of the leg may develop.

The roentgenogram of congenital coxa vara is characterized by a decrease in the angle of the head and neck to the shaft of the femur. There is a demarcated triangular area of bone in the neck of the femur which is bounded medially by the epiphyseal line, laterally by an abnormal band of decreased density and below by the lower border of the femoral neck.

Transient Synovitis.—Transient synovitis is a non-specific, non-pyogenic inflammation of the synovia which is usually insidious in onset, but sometimes is acute following a trauma. A painful limp is the customary initial symptom and is often accompanied by a fever of 100°-101°. The pain is usually mild and fleeting at first and then becomes more severe in one to two weeks. There is a spasm of the muscles about the hip joint and tenderness on palpation over the head and neck of the femur. The hip becomes flexed, adducted and internally rotated. Recovery within a few weeks is the rule.

Roentgenograms are always negative. The laboratory is of some diagnostic assistance since there is usually a slight increase in the white blood cells and the sedimentation rate. Aspiration yields a clear exudate.

The diagnosis of transient synovitis should be made only after septic arthritis and tuberculosis have been definitely ruled out. It is sometimes confused with early rheumatic fever but the latter is differentiated by involving more than one joint as a rule, by its longer duration and by the accompanying cardiac findings.

Septic Arthritis.—Septic arthritis, commonly produced by staphylococcus aureus or a hemolytic streptococcus, usually appears in a child

under one year of age. The initial symptoms may be similar to those of transient synovitis but they are often more abrupt in onset and the pain is more severe. The joint becomes swollen and hot. Pain is elicited on slightest movement and weight bearing is so painful it may soon become impossible. The joint then becomes fixed in flexion. The temperature is elevated to 102°-104°, and there is a marked increase in the white blood count and the sedimentation rate. The blood culture often shows a septicemia. However, some young infants may have such a feeble general reaction that leukocytosis and fever do not appear.

X-rays show no significant changes early, but a few months later may show loss of articular cartilage. Aspiration of a purulent fluid, containing pyogenic organisms on smear and culture, establishes the diagnosis beyond all doubt.

Tuberculosis.—The majority of cases of Tuberculosis of the hip occur under the age of five years. A history of contact with a relative or friend of the family known to have an active pulmonary tuberculosis can often be obtained. The symptom which usally brings the patient to the doctor is pain, but the history shows that it is preceded by one or more of the systemic manifestations of malaise, pallor, anorexia, loss of weight and elevated P.M. temperatures. At first the child may complain of slight pain and stiffness when arising in the morning and then it gradually disappears during the day. Later more muscle spasm develops as the cartilage becomes ulcerated. Pain is still not a chief factor in the day time, although the child begins to walk with a limp. But when the muscles are relaxed in sleep and the child moves without the protective muscle spasm, a severe pain is experienced and she wakes up crying. The pain is also usually referred to the knee, and in fact may be noticed there before it is felt in the hip. This holds true, of course, for the pain originating in the hip in any disease.

As long as the child continues weight bearing the hip develops a flexion, abduction and lateral rotation contracture — the position of most comfort when bearing weight. But when weight bearing is discontinued the hip goes into adduction and internal rotation. In the early case, before any deformity is noticeable, the limitation of extension can be determined more readily by having the child lying prone on a table and then attempting to extend the thigh. Thickening of the joint may be discerned on palpation and muscle atrophy noted.

An absence of high fever and leukocytosis distinguishes tuberculosis from septic arthritis. The usual temperature is 99° — 100°, but if an abscess forms later it may go higher and then simulate a Septic arthritis.

Early x-rays may show no significant changes. The earliest sign is a haziness of the joint due to edema of the synovia. But when effusion develops, the space between the femoral head and the acetabulum is increased. As atrophy develops, the head is more radiolucent and then an area of destruction is seen.

Certain diagnostic procedures should be carried out on all cases suspected of hip Tuberculosis. A positive tuberculin test does not indicate the presence of an active lesion; but a negative one, especially if increased to a strength of 1:500 definitely rules it out. Urine and sputum specimens (stomach washings are often necessary to obtain specimens in children) should be checked by smear, culture and guinea pig innoculation to determine if any tubercle bacilli can be found in the kidneys or lungs. If there are enlarged inguinal lymph glands, a biopsy study often reveals the presence of tubercles. An aspiration should be performed and studied by smear, culture and guinea pig innoculation. Sometimes the tubercle bacilli can be found in the smear and culture, but more often it is necessary to wait for the guinea pig study. Even a negative guinea pig which has been injected with joint fluid should not be accepted as positive proof that tuberculosis is excluded. If clinical signs persist, a biopsy of the synovia and articular cartilage is indicated. This should give a definite answer if a representative section of tissue has been taken.

Coxa Plana (*Legg-Perthes' Disease*).—Children between the ages of five to nine are most commonly afflicted with this form of aseptic necrosis of the capital femoral epiphysis. However, it is sometimes seen as early as the age of three and as late as the age of twelve or thirteen.

Pain may begin early in the disease process, but sometimes it does not occur until much later. The onset is slow and insidious. Again the pain may be first noted in the knee and it is because the doctor focuses his attention on the knee that many cases are not diagnosed early. The

pain and muscle spasm are not so severe as in septic arthritis or tuberculosis, nor is there any accompanying fever or leukocytosis. The principal objective findings are a limp and a moderate degree of limitation of motion. Sometimes a limp is noted before the child complains of any pain. Due to the muscle spasm, the hip becomes flexed and adducted as compared to the position of abduction in the early tuberculosis. Although the spasm may subside, the limb usually remains fixed in this position because of the shortening of the flexors and adductors. Later in the disease the muscles may become atrophic due to disuse, but the atrophy is not so marked, nor seen so early as in tuberculosis.

The earliest x-ray evidence of coxa plana is a widening of the joint space and an increase in the distance between the epiphysis and the bottom of the acetabulum (commonly known as the "tear drop"). This is due to excess synovial fluid filling the joint space. Also cystic areas in the metaphysis may sometimes be seen early. A little later, an increased density appears in the femoral epiphysis and this is best seen in a lateral view. As the disease process continues, the epiphysis progressively becomes flattened, then fragmented and finally the fragments coalesce and the density of the epiphysis diminishes as healing occurs.

Epiphyseolysis.—Epiphyseolysis, or slipping of the capital femoral epiphysis, occurs during the most active growth period between the ages of ten to sixteen years. About 70% are obese and exhibit endocrine disturbances (Froelich type). Tall, thin children, with a rapid skeletal growth, are also quite prone to develop an Epiphyseolysis. The condition is more common in males than in females.

The onset of symptoms is usually insidious with a limp and intermittent mild pain in the hip and/or the knee. The leg gradually becomes externally rotated and is accompanied by slight shortening. On examination, there is very little tenderness or spasm about the hip, but there is a limitation of internal rotation and abduction.

An acute form is occasionally seen following trauma, resulting in a sudden slipping of the epiphysis. In this case the pain is more severe, sometimes preventing the patient from being able to walk.

If roentgenograms are made at the beginning of the first symptoms, in what may be called the "pre-slipping" stage, the epiphyseal line appears wider than normal and changes in the metaphyseal bone may give a fuzzy appearance. As slipping occurs, the neck slips upward and anterior to the head. This can best be seen on the lateral view in the initial stages. On the A-P view there is a gradual loss of the normal "hump" which exists at the junction of the capital epiphysis and the femoral neck, and there is a disturbance of Shenton's line.

It should be remembered that about 25% of the cases of epiphyseolysis are bilateral, either simultaneous or at a subsequent time. Therefore any child in whom a diagnosis of epiphyseolysis has been made on one side should have frequent roentgenograms made of the opposite side until the epiphyseal line has disappeared.

Bone Tumors.—In searching for a cause of hip pain in children, too often tumors of the pelvic bones, and the neck and trochanteric region of the femur are overlooked in the early stages. Most of them occur after the age of ten. Of the six tumors listed in the outline on the first page, osteochondroma is the only one in which pain is not an early symptom. The osteochondromas may go unnoticed unless they produce pressure against some vessels or nerves or become so large as to produce a mechanical block or be easily palpable. On the x-ray it appears as a well defined projection from the normal bone and is surrounded by a thin shell of cortical bone.

Pain, of varying intensity, is common to osteoid osteoma, fibrous dysplasia, eosinophilic granuloma, osteogenic sarcoma and Ewing tumors. The last three named usually produce some swelling, although it may not become evident in the early stages. A Ewing tumor is accompanied by fever and leukocytosis. Otherwise there are no other clinical or laboratory findings of diagnostic importance.

When the typical "text book" picture of the various tumors is seen on the roentgenogram, a diagnosis might be made on that basis. The osteoid osteoma shows a small area of radiolucency surrounded by an area of increased density. A fibrous dysplasia may exhibit either a "ground-glass" or cystic appearance. When the latter occurs it cannot be distinguished from an eosinophilic granuloma or a simple bone cyst.

An osteogenic sarcoma shows evidence of both bone destruction and bone formation with an irregular invasion of the tumor into the soft parts. In the early stages of Ewing tumor there is only condensation of bone and it later is followed by the "onion skin" layer appearance parallel to the bone. Destruction of the original bone structure is not seen until a late stage.

But whatever the x-ray appearance may be, the exact diagnosis of the bone tumor is usually not made until a biopsy study has been done. This should not be neglected in any case of doubt.

SUMMARY

In establishing a diagnosis of one of the several disorders which may occur in the hips of children, one must combine a careful history and physical examination, roentgenographic and laboratory studies and often joint aspiration and biopsy. The most important of the diagnostic aids for each of the conditions under consideration, however, may be given in summary as follows: (A) History, physical examination and roentgenograms for all the congenital disorders, coxa plana and epiphyseolysis; (B) Laboratory studies and joint aspiration for the infections; (C) Roentgenograms and biopsy for the bone tumors.

Jefferson Building.

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SUMMARIZE RESEARCH ON VITAMIN E THERAPY

Protagonists of vitamin E therapy have not reported any results derived from critical clinical tests, says a report of the Council on Pharmacy and Chemistry of the American Medical Association.

The report, which appears in the February 18th Journal of the A.M.A., says in part:

"More than three years ago, stories appeared concerning a remarkable new treatment for patients with circulatory disease. The treatment was said to have been discovered by some investigators in London, Canada. It was alleged that large doses of vitamin E could effect remarkable recoveries in patients with a wide variety of cardiovascular disorders who had not been benefited by more orthodox therapy.

"The protagonists of vitamin E therapy have not reported any results derived from critical clinical tests, although medical and lay literature contain reports which, to the uncritical, might appear to lend support to the hypothesis that vitamin E is useful in the treatment of heart disease.

"It is regrettable that the hopes of sufferers from heart disease and other cardiovascular conditions, as well as those of countless diebetic persons, should be falsely raised by unbridled enthusiasm."

The A.M.A. report cites a number of "carefully conducted and adequately controlled" studies which, according to the Council on Pharmacy and Chemistry, failed to substantiate early reports of the usefulness of vitamin E in heart disease and diabetes.

CASE RECORDS OF THE COOK COUNTY HOSPITAL

KARL MEYER, LEO M. ZIMMERMAN, DEPT. EDITORS

Alcoholic Neuropathy and Laennec's Cirrhosis

William Saphir, M.D., F.A.C.P. and Jean Spurlock, M.D.

The detrimental effects of alcohol upon both the central nervous and digestive systems are well known. In the Cook County Hospital there are always patients under observation who are suffering from either alcoholic neuropathy or alcoholic cirrhosis. However, the co-existence of both diseases in one individual appears to be a rare event. Current textbooks [1, 2, 3] do not mention polyneuritis as a part or as a complication of alcoholic cirrhosis and vice versa. One could perhaps assume that such a combination does not exist or that one alcoholic disease process excludes another.

It is for this reason that a case is hereby presented offering the classical picture of both, alcoholic cirrhosis and alcoholic polyneuropathy. An analysis is made of the findings involved in an attempt to offer an explanation for this rare combination.

Mr. C. L., a 61 years old white male of Hungarian descent was admitted to the Cook County Hospital October 7, 1949. During the past recent months he had noted tingling and numbness of hands and feet as well as gradually increasing weakness in the extremities so that it became difficult to walk for any length of time or to hold a glass of water in his hands. He had lost 20 lbs in the preceding months which he attributed to lack of appetite, nausea and occasional vomiting. He admitted a daily intake of approximately one quart of wine for many years. Recently, he had noted enlargement of the abdomen and dyspnea upon exertion.

Physical examination revealed a poorly nourished white male lying comfortably in bed. There was considerable pallor, and pitting edema around the ankles. The blood pressure was 120/60. There were scattered moist rales over both lower lungs, and moderate cardiac enlargement to the left, with the apex beat in the fifth interspace just lateral to the midclavicular line. There was a soft apical systolic murmur and the rhythm was regular.

The abdomen was distended and soft. The liver was hard and nodular, and could be felt with the edge reaching to six cm. below the right

From the Medical and Neurological Department, Cook County Hospital, Chicago, Illinois.

costal margin. The spleen was enlarged, firm, not tender, and palpable, reaching to two cm below the left costal margin. The presence of ascites could not be ascertained definitely.

Significant neurological findings were a decrease of vibratory sensation at and below the anterior iliac spines, anesthesia over the distribution of the right ulnar nerve, and a patchy hyperes-thesia over lower limbs. There was tremor of upper extremities on motion, there was weakness of left arm and interossei atrophy. There was marked diminu'ion of motor power of the lower extremities so that the patient was unable to walk unaided. There were decreased deep tendon reflexes.

Laboratory findings: The urine was negative to albumen, glucose, and abnormal microscopic findings. Examination of the blood revealed a red blood cell count of one million, a hemoglobin of 46%, a white blood cell count of 6,350 with a differential count of 59% neutrophiles, 34% lymphocytes, 6% monocytes and 1% eosinophiles. The non protein ni'rogen was 40 mgm%, the total plasma protein 5.9 gm% with an A/G ratio of 2.9 to 3.0. The icteric index was 20, the thymol turbidity 6, and the cephalin flocculation 3 plus. An Xray chest plate was reported as negative. The electrocardiogram showed no abnormality. Gastric aspiration revealed the presence of an achlorrhydria refractory to histamine. Spinal fluid examination disclosed absence of cells, a protein content of 22 mgm%, glucose 55 mgm%. The spinal Wasserman reaction was negative. A sternal bone marrow aspiration was performed and reported as noncontributory.

Course: The patient was placed on a high protein, high caloric diet with vi'amin supplements and Brewer's yeast, five tablets q.i.d. In addition, the patient received nicotinic acid 25 mgm t.i.d. and daily intramuscular injections of 100 mgm thiamine chloride. Crude liver extract one cc was given twice weekly. Under this regime the patient seemed to respond favorably, although slowly. The improvement seemed to be accelerated when the mode of administration of thiamine chloride was changed from the intramuscular to the intravenous route. After one month's treatment the red blood cell count rose to 3.7 Million, and the hemoglobin to 67%. Six weeks after trea'ment was begun the total blood protein values reached 7.6 gm% with an albumin fraction of 3.5 gm% and a globulin of 4.1 gm%. The icteric index dropped to 7. The thymol turbity and cephalin flocculation tests remained at abnormally high levels, the former at 8.2 and the latter at three plus.

At the time of the writing, twelve weeks after initiation of treatment, there is marked improvement of the neurological disorder. The patient is able to walk unaided, the motor power in extremities is considerably increased, subjective pain sensations have largely disappeared. There has remained a considerable atrophy of musculature, especially of the upper extremities, a rest type of tremor of both hands, a hypesthesia along the ulnar distribution of the right hand, a decreased vibra'ory sensation in the right lower extremity and a mild ataxia, heel to knee and finger to nose. The patient's general condition appears good. Physical findings in regard to hepatosplenomegaly have remained essentially unchanged.

COMMENT

The role of alcohol in the etiology of Laennec's portal cirrhosis and alcoholic polyneuropathy is well established. However, there is no uniformity of opinion[4] as to the exact mode of action in the pathogenesis of these diseases. Perhaps the most common assumption today is that alcohol does not act as a specific toxic agent but that a nutritional deficiency state is brought about by the anorexia of the alcoholic by the alcoholic gastritis, by the achlorhydria and by the rapid metabolism of the alcohol itself.

Experimentally, diets high in fat, low in protein, and deficient in thiamine, cholin, niacin, pyridoxin and other members of the vitamin B complex have produced disease pictures indistinguishable from human fatty cirrhosis and hepatitis[4]. Alcoholic polyneuropathy is considered a manifestation of thiamine deficiency probably leading to pyruvic acid intoxicaton. For some time, it has been known that pyruvic acid, a normal intermediate metabolit of carbohydra'e metabolism is not metabolized in the absence of thiamine.

If alcohol is the common denominator of both diseases, Laennec' cirrhosis and alcoholic polyneuropathy, an explanation should be found why 'hese diseases are so rarely co-existent in one individual. There is little doubt that there exists a marked deficiency of thiamine and other vitamins in the untreated alcoholic cirrhotic. Yet,

a significant degree of polyneuritis is usually absent. Could one assume that the peripheral nervous system by some unknown mechanism appears well protected against thiamine deficiency damage in alcoholic cirrhosis? Our case offered the classical findings peculiar to both conditions. The only unusual feature was the presence of a severe anemia upon admission. Whereas moderate anemias of the macrocytic or normocytic type are not uncommon in liver diseases[5] the marked anemia of one million red blood cells and the hemoglobin of 46% upon admission must be considered a rare occurrence. In the presence of a normal bone marrow the anemia appeared to be related to nutritional factors, to the achlorhydria and to the marked liver damage.

It would, therefore, seem reasonable to assume that the extreme anemia in our case added further anoxic damage to a peripheral nervous system already made vulnerable by thiamine deficiency.

It is fully realized that no proof can be offered at this time for these theoretical considerations. It is also true that no satisfactory explanation can be given as to the question why alcoholics by virtue of their thiamine deficiencies may develop either polyneuropathy, or Laennec' cirrhosis, or alcoholic psychoses or alcoholic Wernicke' disease. The fact remains that for some unknown reason there is usually only one manifestation of "alcoholic disease" to be found in one individual. It is hoped that analyses of further such rare cases may shed some light upon the obscure pathogenesis of alcoholic diseases.

SUMMARY AND CONCLUSIONS.

An unusual case is presented offering the rare combination of alcoholic polyneuropathy and Laennec's alcoholic cirrhosis.

The etiology and pathogenesis of both conditions is discussed.

It is believed that the extreme anemia in our case was instrumental in adding further anoxic damage to a peripheral nervous system that in spite of severe thiamine deficiency appears remarkably well protected in the case of the alcoholic cirrhotic.

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FIND ETHYL ALCOHOL UNSATISFACTORY DISINFECTANT FOR WOUNDS

Ethyl alcohol, the ordinary alcohol of commerce and pharmacy, should not be used as a disinfectant in wounds or on raw surfaces of injured areas, according to a Salt Lake City doctor who made a study of the substance.

The antibacterial action of ethyl alcohol is neutralized by proteins present in the wound, says Dr. Philip B. Price of the University of Utah College of Medicine. Dr. Price's report appears in the March issue of Archives of Surgery, published by the American Medical Association.

Further, the alcohol is painful, injures wound tissues and delays wound healing, Dr. Price points out.

Simple solutions of ethyl alcohol are not satisfactory agents for cold sterilization of surgical instruments, Dr. Price also found.

Seventy per cent alcohol (by weight) in water, however, is still believed to be the "solution of choice" for disinfection of the skin, he says. On healthy skin, this solution is powerfully destructive to germs and harmless to the body.

CASE REPORTS



Rhinophyma and Acne Rosacea Treated With the Electrosection Current

William A. Rosenberg, M.D., and I. Myron Felsher, M.D.
Chicago

The final stage of acne rosacea, known as rhinophyma, is a grotesque enlargement of the lower two-thirds of the nose, and may occasionally involve the chin[1] or forehead. Rhinophyma is observed frequently in men, but is exceedingly rare in women. It is indeed curious that rhinophyma is rare among women although acne rosacea occurs in the ratio of three females to one male[2].

The rosacea complex is a vaso-motor neurosis caused by reflex circulatory disturbances involving the flush area of the face. Predisposing factors include: chronic gastritis resulting from over-indulgence in caffeine, spices or alcohol, although in some instances the affection has been observed in most temperate persons. Other attributive factors are disturbances of the female reproductive system, neurosis, focal infection and exposure to sudden extreme changes of temperature.

From the Department of Dermatology, Michael Reese Hospital.

Recently we treated a case of rhinophyma and acne rosacea in a woman with the electrosection current. Since the lesions responded favorably, we thought it advisable to make a preliminary report on this form of therapy.

D. C., an obese white woman, aged 63, was referred to the Dermatologic Clinic of the Michael Reese Hospital on June 26, 1947 for treatment of an eruption of the face and hypertrophy of the nose. The eruption on the face was of 15 years' duration and the rhinophyma of 2½ years' duration. Examination showed diffuse erythematous patches on cheeks, forehead and chin, with considerable telangiectasis and acneform lesions. The nose was hypertrophied, distorted with areas of tumefaction and pedunculated masses. The follicular orifices were distended with large comedones. An associated rosacea keratitis was also present.

The examination of the urine, blood cholestrol, lipoid, and Kahn tests were within normal limits. On May 20, 1948 the patient developed an acute



Figures 1 and 2. Rhinophyma before and after treatment by electrosection current.

dermatitis about the genitals, and at that time sugar was found in the urine. The glucose tolerance test showed fasting-375 mg., thirty minutes-593 mg., sixty minutes-490 mg., three hours-270 mg. per hundred cc.

Under local anaesthesia on June 27, 1948, July 10, 1948 and Nov. 18, 1948 the left side, right side and lower portion of the nose were treated in the order stated respectively with the electrosection current.

Some of the indolent acneform papules were treated by inserting a fine steel needle into the lesion following which the needle was energized with the oscillating current for about 1/10th of a second. The lesions so treated healed promptly.

The advantages of the electrosection current in rhinophyma are that infections are less likely to occur with this method, the patient need not be hospitalized, and skin grafts are unnecessary. Although the patient was obese and diabetic, the lesions healed promptly within three weeks after treatment.

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Severe Anaphylactic Reaction To Wasp Sting

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Chicago

Wasp or bee stings are occasionally followed by severe anaphylactic reactions. Reports[1-4] of such reactions stress the rapid onset of symptoms, urticarial lesions, localized or generalized edema, unconsciousness and a severe state of shock. The mechanism of anaphylactic shock produced by bee or wasp stings is rather complex. Benson and Semenov[5] are of the opinion that it may be due to the venom, to the reaction of the individual to pollen adhering to the insect or to sensitivity of the individual to allergens inherent in the insect. The subject of severe reactions, fatal or otherwise, has been exhaustively considered by Roch[6] and Courboulles and Mandillion[7]. Necropsy examinations on persons dying of wasp or bee stings are limited in number. Recently Von Wegelin[8] reported the necropsy findings in three cases of sudden death due to bee or wasp stings. The gross findings include hyperemia of the internal organs, edema of the lungs and larynx, petechial hemorrhages into the skin and mucous membranes and occasionally in the meninges and brain.

We are reporting a case of severe anaphylactic shock as a result of a wasp sting. Complete recovery followed the administration of epinephrine and parenteral diphenhydramine hydrochloride (benadryl).

CASE REPORT

On August 28, 1949, a 58 year old white male was admitted to the St. Francis Hospital emergency room in a shock-like state, extremely restless, unresponsive, with profuse sweating, flushed face and cyanosis of the lips and fingernails. It was learned from a companion that the patient had been stung on the upper lip by a wasp about forty minutes earlier while attending a picnic. Within 3 to 5 minutes he began to behave abnormally and shortly afterward collapsed. On arrival at the hospital the blood pressure and the radial pulse could not be obtained. The skin was cold and clammy, face flushed and the lips and nails were cyanotic. It was noted that the upper lip was markedly edematous. Respiration was rapid, shallow and somewhat labored. Lung fields were clear and free of wheezing breath sounds. The heart tones were very distant with a rapid apical rate. Examination of the abdomen and reflexes revealed nothing of significance. Immediately upon admission to the hospital, oxygen by mask and a venoclysis of 5% glucose in physiological saline solution was administered. Shortly afterwards 20 mg. of diphenhydramine hydrochloride (benadryl) was given intravenously and 0.5 cc. of epinephrine 1:1000 subcutaneously. About five minutes later a barely discernible blood pressure reading of 80/60 was obtained. The radial pulse was not palpable. At this time it was observed that the patient's hands, feet and legs were becoming edematous. He was still unresponsive and restless. A second intravenous injection of benadryl, 10 mg., was administered. In a short while the patient began to respond and cooperate. The blood pressure rose to 110/80 and the radial pulse could be determined. With the return of consciousness a profuse bloody diarrhea developed. This continued intermittently during the next 24 hours. The local edema involving the upper lip as well as the edema of the hands and legs disappeared within 18 hours. The patient was able to take liquids orally 2-3 hours after the acute attack. His only complaints on the following day were generalized muscle aching and headache. These symptoms gradually subsided and he was discharged 3 days later feeling quite well. On admission, blood counts were as follows: hemoglobin 22.8 grams, erythrocytes 7,020,000, leucocytes 11,450 with a differential pattern of 7% stab forms, 81% neutrophils and 12% lymphocytes. The next day the blood revealed:

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hemoglobin 16 grams, erythrocytes 5,310,000, leucocytes 8,500.

COMMENT

The response of an individual to bee or wasp stings is variable. Some persons may receive many stings at the same time and merely demonstrate minimal local reactions. However, there are several reports in the literature describing a shock-like syndrome and death within a few minutes following a single sting. It is generally believed that this intense sensitivity is of an allergic character and may be due to sensitization developed after previous stings. Roch[6] and others have suggested that the immediately fatal and the severe reactions are probably due to the entry of the venom directly into the blood stream. It has also been noted that severe reactions are likely to occur when the site of the sting has a thin covering of skin and is of high vascularity such as the lips and the dorsum of the hand.

Until recently the immediate treatment of severe anaphylaxis due to wasp or bee stings has been the administration of epinephrine. It has been demonstrated[5] that bee venom produces a histamine-like action. In view of this and the similarity of the symptoms to those induced by histamine, it seems advisable to use one of the antihistamine drugs in the treatment of this emergency.

SUMMARY

A case of severe anaphylactic reaction to a wasp sting is recorded. Complete recovery followed the administration of parenteral diphenhydramine hydrochloride (benadryl) and epinephrine.

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FIND BLOOD TEST FOR CANCER NOT SUITABLE FOR DIAGNOSIS AT PRESENT

The Huggins-Miller-Jensen blood test for cancer does not appear suitable at present as a diagnostic test, in the opinion of two researchers from the Department of Experimental Pathology, Quincy (Mass.) City Hospital.

The test, based on albumin disturbance in cancer patients, was first reported about a year ago by Dr. Charles B. Huggins of the University of Chicago.

The diagnostic value of the procedure followed by Dr. Huggins and his co-workers was tested by Dr. Otakar J. Pollak and Adeline Leonard, B.S. Their report on test results from blood serums from 80 patients with proved malignant growth and on control serums from 170 patients appears in the March 25th Journal of the American Medical Association.

In seven of the 80 patients with proved malignant growth, the test failed to indicate the presence of cancer, the researchers say. In 23 of the 170 persons in whom malignant growth was excluded on the basis of clinical signs and laboratory and x-ray study, the test indicated malignancy. The total number of false reactions in the series of 250 persons was 30 (12 per cent).

"At the present time, this reaction is not suitable as a diagnostic test," the researchers point out. "Further investigation might bring about the development of a reaction the result of which would show better correlation with disease."

PATHOLOGY CONFERENCES

EDWIN F. HIRSCH, DEPARTMENT EDITOR



PRESENTATION OF TWO CASES

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COLLOID CARCINOMA OF THE CECUM WITH EXTENSIVE METASTASIS

This 42 year old white woman entered St. Luke's Hospital to the service of Doctor Chester Coggeshall for the second time on September 17, 1949 and died on September 19, 1949. At her first admission in May 1949 she complained of pain in the lumbar region and nausea of three weeks' duration and a mass in the neck. The constant nausea was associated with cramping pains in the lower right abdominal quadrant. There had been no vomiting, diarrhea, or constipation but the stools had dark red blood. Occasionally she had pain in the left side of the chest anteriorly, and for about a week before admission blood was in the sputum. The patient was a thin, pale white female. She had nontender, fixed, enlarged matted and discrete lymph nodes in the supraclavicular fossa on each side, behind the sternocleidomastoid muscle. A small firm nodule in the suprasternal notch seemed to move with swallowing. The spoken voice sounds over the apical region of the left lung were decreased; otherwise the lungs were negative. The heart sounds, rate and rhythm were normal. The blood pressure was 128/70 mm. of Hg., the pulse 78 and the respirations 16 per minute. The temperature was 99°F. A hard nodular mass the size of a baseball was in the epigastrium just below the tip of the xiphoid process and seemed separated from the liver. The liver margin was palpable about 5 cm. below the right costal arch and was slightly tender. The left lower quadrant of the abdomen was tender on deep palpation. The physical examination otherwise was negative. Fluoroscopic study and a film of the chest revealed mediastinal shadows. X-ray examination of the colon disclosed a large filling defect in the cecum opposite the ileo-cecal valve. The urine had a specific gravity of 1.020 and contained 6-12 leukocytes per high power field examined, but otherwise was negative. The erythrocytes were 3.11 million and the leukocyte 7,550 per cu.mm. The hemoglobin was 8.7 grams percent. The blood Kahn test was negative. The blood non protein nitrogen, sugar, cholesterol and phosphorus of the blood were within normal limits. The alkaline phosphatase was 8.2 Bodansky

units. The total serum proteins were 6.15 grams percent and the albumin-globulin ratio was 2.8:3.35. The thymol turbidity was 5.5 units. The blood sedimentation rate was 42 mm. in one hour. A supraclavicular lymph node removed for biopsy contained coarsely lobulated, gelatinous gray tissue; portions were yellow. Grossly the tissue had the appearance of colloid carcinoma. The histologic examinations confirmed this. The clinical diagnosis was adenocarcinoma of the cecum and metastatic glandular (colloid) carcinoma of cervical lymph node. The patient was re-admitted on September 17, 1949 because of progressive weakness and a sensation of fullness in the abdomen. Since her first admission the stools contained red blood and at times were tarry. The patient was comatose, emaciated and markedly jaundiced. The pupils responded slightly to light. The respirations were shallow. Rales were heard at the base of both lungs. The cardiac findings were not unusual. The blood pressure was 86/50 mm. of Hg., the pulse 116 and the respirations 28 per minute. The temperature was 99°F. The abdomen was distended with fluid. The liver was palpable below the costal margin. The deep tendon reflexes were sluggish. The physical findings were similar to those of her previous admission. She died on the second day in the hospital.

The essentials of the anatomic diagnosis of the necropsy are:

Colloid carcinoma of the cecum;

Extensive metastatic carcinoma of the liver, lungs, pancreas, left suprarenal gland and of the abdominal, cervical, parabronchial, supraclavicular and mediastinal lymph nodes;

Metastatic carcinoma compression of the common bile duct;

Marked generalized icterus;

Ascites;

Bilateral hydrothorax;

Emaciation;

Hemorrhages of the cecum and large bowel.

The emaciated and markedly jaundiced body of this white woman weighed 130 pounds. The cervical and supraclavicular lymph nodes were large. On the left side of the neck was an old surgical biopsy scar. The feet were slightly edematous. The abdomen was distended with



Figure 1. Photograph illustrating the primary colloid carcinoma of the cecum.

a large quantity of clear bile-stained fluid. The iliac, lumbar, mesenteric, gastric, hepatic and pancreatico-duodenal lymph nodes were markedly enlarged. Surfaces made by cutting the lymph nodes were replaced by nodules of yellow gelatinous tumor tissue. The cecum had an annular carcinoma which extended 6 cm. in the bowel and 12.5 cm. in the circumference (Figure 1). In the lumen of the cecum and large bowel was a large amount of dark red blood. The liver weighed 3970 grams and filled the upper quadrants of the abdomen. The capsule had many small elevated gray-yellow tumor nodules and the tissue were bile-stained. Much of the right lobe was replaced by a large mass of yellow gelatinous carcinoma tissue 14 cm. in diameter. There were other similar but smaller carcinoma nodules in both lobes. The liver tissue between the carcinoma nodules was dark green with bile. The markedly dilated gallbladder was 12 by 5 cm. The biliary lymph nodes were matted into a hard mass 7 by 7 by 3 cm. The common bile duct near its termination was compressed by a mass of tumor tissue 2.5 by 2 by 1 cm. The lumen of the common duct, the cystic duct, the gallbladder and the right and left hepatic ducts was dilated. Above the level of the tumor tissue compression the common duct had an inside circumference of 4 cm., and below an inside

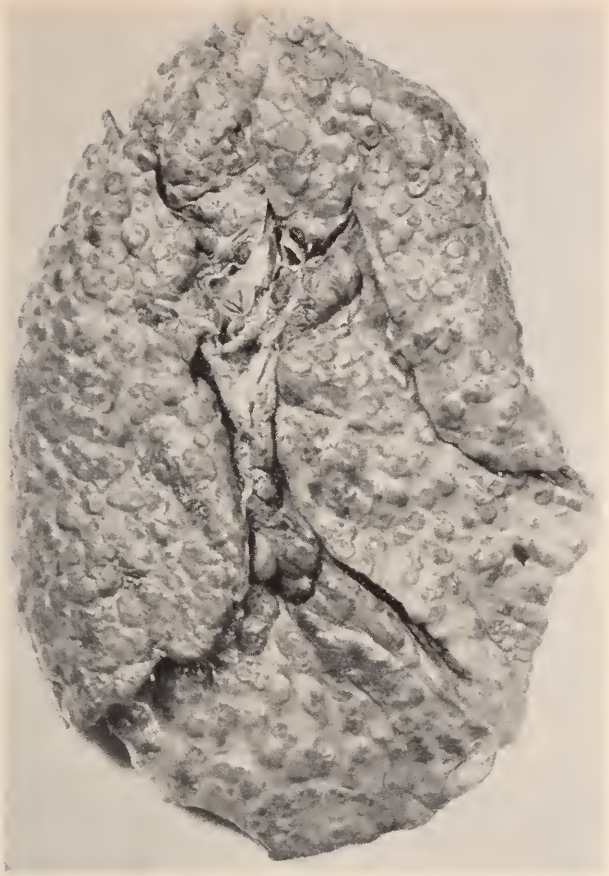


Figure 2. Photograph illustrating the multiple metastatic carcinoma nodules beneath the pleura of the lungs.

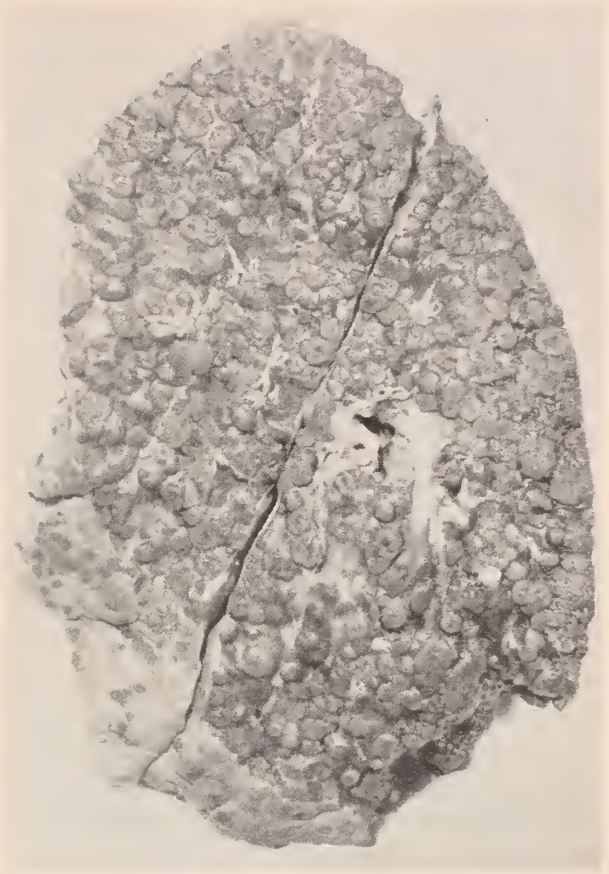


Figure 3. Photograph illustrating the multiple metastic carcinoma nodules in the parenchyma of the lungs.

circumference of 2 cm. The pancreas was also infiltrated by metastatic tumor tissues. The lining of the pancreatic duct was grey and smooth, but the lumen was irregularly dilated. The right suprarenal gland weighed 9.5 grams. The left suprarenal gland was 6 by 3 by 2.5 cm. and weighed 24 grams. The parenchyma was largely replaced by yellow gelatinous tumor nodules and only a rim of cortex remained. The right kidney weighed 110 and the left 130 grams. The kidneys were stained with bile and were hyperemic. The spleen weighed 155 grams, and was also stained with bile. The lining of the stomach and the large and small bowel except as mentioned, was hyperemic. The urinary bladder had no changes. The uterus had a few small subserous and intramural fibromyomas. The ovaries and fallopian tubes had no significant changes. There was a marked bilateral hydrothorax. The fluid was clear and stained yellow with bile. The lymph nodes at the bifurcation of the trachea and main bronchi were a blackened mass 4 by 3 by 1 cm. and surfaces made by cutting contained yellow gelatinous metastatic tumor tissues. The lining of the trachea and main bronchi was stained yellow with bile and slightly hyperemic. The right lung weighed 1050 and the left 1030 grams. The surface of the lungs (Figure 2) was studded with myriads of firm translucent nodules, rather uniform in size and averaging about 7 mm. in diameter. The lining of the pulmonary arteries and veins was smooth. The lining of the bronchi had the usual longitudinal folds. Surfaces made by cutting the lungs had myriads of small yellow-green gelatinous tumor nodules (Figure 3). Only a small amount of parenchymal tissue remained. The cervical lymph nodes contained metastatic tumor nodules. The upper portion of the esophagus, the trachea, the larynx, the phrynx and tongue were not unusual. The thyroid gland weighed 16 grams. Surfaces made by cutting the thyroid were grey, lobulated, and wet with colloid. The leptomeninges were edematous and hyperemic. The brain weighed 1350 grams. The convolutions were rounded and the sulci correspond-

ingly deep. The cerebral and cerebellar hemispheres were symmetrical and no tumor metastases were seen. The venous sinuses of the dura, the paranasal sinuses, the mastoid air cells and middle ear cavities were not unusual. Cultures of the heart blood, the cerebrospinal fluid and the pericardial, the pleural and the peritoneal fluids had no growth. The histologic preparations of the carcinoma tissues from the cecum had a vascular fibrous stroma extensively ingrown by masses of atypical glandular epithelium which extended into the submucosa and muscularis. The gland structures were complex and lined by columnar epithelium in one or more layers, frequently in blunt villous folds. The glands ranged considerably in size. The lumen of some of the large structures had a basophilic mucinous secretion. There were also other aggregates of atypical cells. These had a granular cytoplasm and vesicular nuclei and in the cytoplasm of some were large vacuoles. Histologic preparations of the various lymph nodes containing tumor tissues were repaced by large and small pseudo-cystic spaces filled with a basophilic mucinous material. A few of the cystic spaces had segments of atypical columnar lining cells in one or more layers. Some of the masses of basophilic material had aggregates of carcinoma cells with retrogressive changes. The metastatic tumor nodules of the liver, the pancreas and the left suprarenal gland had a similar structure. The liver cells also had masses of inspissated bile in the dilated canaliculi and marked fatty changes. The spleen had carcinoma metastases.

COMMENT

Carcinomas of the colon commonly produce mucinous secretion because the tumor cells are derivatives of the goblet cells in the lining. The amount of mucin material produced varies considerably, and even the differentiation of the tumor cells, that is, whether they grow largely as single cells or form atypical glands, seems not to be essential. Those with cells isolated or in small groups and with large vacuoles in the cytoplasm produce mucinous material as well as do those with atypical gland structure. The tumor tissues disintegrate and crevices remaining in the stroma are filled with mucinous material and small group of carcinoma cells. The extensive hematogenous dissemination of a colloid carcinoma of the cecum as observed in this patient, is unusual and therefore remarkable.

CIRRHOSIS AND PRIMARY CARCINOMA OF THE LIVER

A white woman aged 80 years entered St. Luke's Hospital in the care of Dr. Harold Steinberg because of jaundice and abdominal distention for three weeks. For several months she had had anorexia and had lost weight. Her legs and feet became edematous, the stools light in color, the urine dark and her skin icteric. Then rapidly her abdomen became swollen. Blood was not observed in the stools. She had enjoyed good health except for episodes of dyspnoea which were ascribed to a functional deficiency of the heart. When admitted she was markedly jaundiced, had dullness to percussion over the lower posterior portion of the left side of the chest, had a regular heart rate of 48 per minute with a short systolic murmur at the apex. The blood pressure was 120/70 mms. Hg. The distended abdomen had a fluid wave and the right lobe of the liver extended 5 cms. below the costal margin and was hard. The acid urine had a specific gravity of 1.014, contained 5 mgms percent albumin, many leucocytes and bacteria. The blood had 3,260,000 erythrocytes and 6,650 leucocytes per cmm., and a hemoglobin of 9.2 gms. percent. The neutrophil leucocytes were 68 percent. The total nonprotein nitrogen of the blood was 84 mgms, the creatinine 2.8 mgms., and the sugar 67 mgms. percent. The total quantitative bilirubin was 6.4 mgms., the immediate direct 2.4 mgms., and the indirect 4.0 mgms. percent. The alkaline phosphatase was 16.1 Bodansky units. The thymol turbidity units were 27.5 and the blood phosphorus 3.7 mgms percent. The total proteins of the blood were 6.08 gms. percent and the albumin-globulin ratio was 1.1:4.98. The cephalin flocculation test was 3 plus in 24 hours. Other laboratory examinations yielded results in the same pattern.

The clinical diagnosis was cirrhosis of the liver, 3rd degree heart block, carcinoma of the head of the pancreas or of the stomach with generalized metastases. The patient lapsed into coma, she had a daily fever of 101°F., her jaundice and

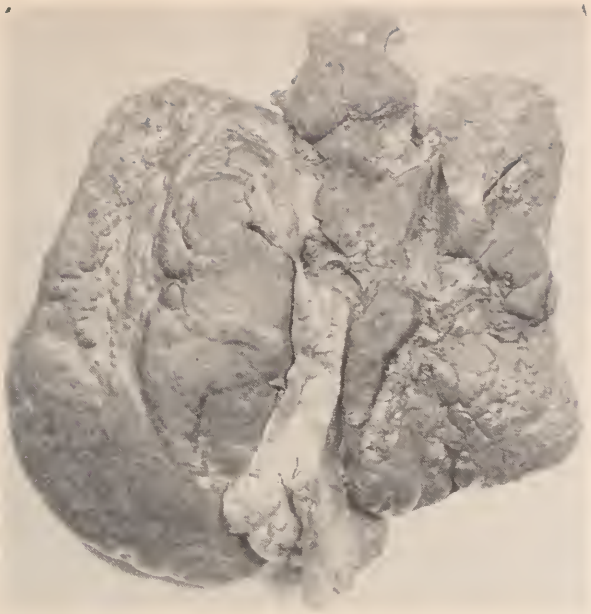


Figure 4. Photograph illustrating the tongue shaped growth of carcinoma tissues from the right lobe of the liver into the common bile duct.

edema increased. Additional laboratory tests disclosed further damage of the liver, and she died suddenly on the 16th day in the hospital.

The essentials of the anatomic diagnosis are:

Atrophic cirrhosis (Laennec) and primary carcinoma of the liver;

Carcinoma invasion and obstruction of the common and hepatic bile ducts;

Carcinoma compression and fibrous obliteration of the portal vein;

Generalized icterus;

Marked ascites;

Anasarca; etc.

The emaciated and markedly jaundiced body of this elderly white woman weighed 165 pounds. The skin on the back and arms had multiple ecchymoses and petechial hemorrhages. The thighs, legs, and feet were edematous. The abdomen contained five liters of dark-yellow bile stained fluid. The retroperitioneal veins were markedly dilated. Each pleural space contained about 200 ccs of clear dark yellow fluid; the right pleural space was partially obliterated by fibrous adhesions. The heart weighed 400 gms. There were no significant changes of the valves or myocardium. The lining of the coronary arteries had moderate fibrous and fatty changes. A subepicardial hemorrhage of the right auricular appendage was 2.5 by 2 cms. The right kidney weighed 150 gms., the left 165 gms. Both had changes of senile arteriosclerosis. The biliary lymph nodes contained nodules of grey carcinoma tissues, 2 to 3 mms. dia. A cone shaped mass of bile stained carcinoma tissues extended from the right lobe of the liver through the right hepatic duct into the common bile duct (Figure 4). It was 9 cms. long and at the hilum of the liver was 2.5 cms. in dia. The portal vein was compressed and the walls were fused by fibrous adhesions. The hard, green, nodular liver weighed 1250 gms., and the individual nodules of green liver tissues ranged to 1 cm. dia. A retracted scar 9 cms. long extended vertically on the anterior surface of the right lobe and the green nodular cirrhotic liver tissues lateral to this had a protruding nodule of yellow tissue 3 by 4 cms. (Figures 5 and 6). This, on

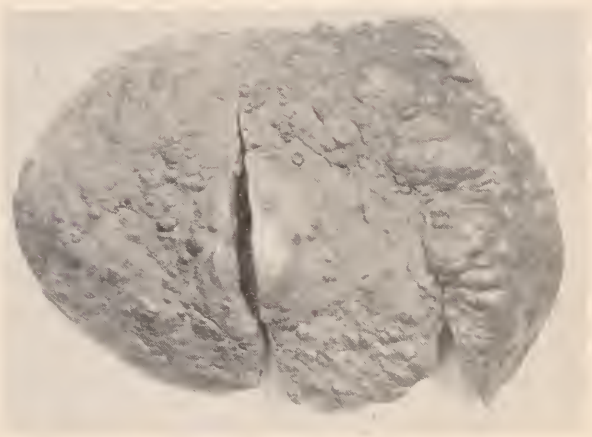


Figure 5. Photograph illustrating the capsular surface of the liver and the protruding nodule of carcinoma tissues.



Figure 6. Photograph illustrating the cirrhosis of the liver and near the center, the primary carcinoma.

surfaces made by cutting, had hard green nodules of liver tissues in dense fibrous stroma and grey yellow carcinoma tissues which extended into branches of the ducts and blood vessels. The spleen weighed 200 gms. The lungs had a hypostatic edema and bronchopneumonia but no metastatic carcinoma. Examinations of the head and neck structures disclosed no significant changes.

Histological examinations of the liver demonstrated a marked cirrhosis and in the right lobe a primary carcinoma largely of cells like liver parenchyma but with a few odd lumen —like structures. Carcinoma tissues had grown into the lumen of blood vessels and of bile ducts and formed the mass in the right hepatic and common bile ducts.

COMMENT

The clinical history of this patient affords no clue as to the possible cause of the liver cirrhosis. But primary carcinoma arising in a cirrhotic liver is not uncommon. It occurs with this liver disorder because the stimulus for a compensatory regeneration of destroyed liver parenchyma is comparable to one causing neoplasia. Morphologically, liver tissues in the active phase of regeneration resemble those of an hepatic cell carcinoma. Accordingly, regeneration of hepatic parenchyma following severe necrosis and hepatic cell carcinoma appear to be in the same order of tissue growth. Jaundice, progressive in intensity, is a common symptom of primary carcinoma of the liver, and probably is caused by extensive multiple intra-hepatic obstructions of bile duct radicles by carcinoma. The intense jaundice in this patient should be ascribed to the extension of the carcinoma into the lumen of the common bile duct with bile obstruction. This unusual spread of the carcinoma obstructed bile outflow although the primary carcinoma in the liver was limited in extent.

ELECTRON MICROSCOPE PROVING BIG AID IN MEDICAL RESEARCH

Solutions to some of the vexing problems before medical researchers may be reached through the use of the electron microscope, in the editorial opinion of the March 25th Journal of the American Medical Association.

"Where future research with these microscopes will lead remains to be seen, but there is assurance that if the future findings are as exciting as those of the past few years they will be astounding," says the editorial.

It points out that there is need for precision techniques in the field of microscopic exploration. The electron microscope, which because of its size appears to be built upside down, is being used in the study of plant and animal viruses and of bacteriophages, an utramicroscopic bacteria-destroyed agent.

"The importance of studying the virus (or viruses) responsible for anterior poliomyelitis (inflammation of the gray substance of the spinal cord), influenza viruses, viruses of the pox group and other disease-producing organisms cannot be stressed too strongly," says the editorial.

"One important aspect of the observations made with the electron microscope is the different way in which bacteria and viruses may behave in their living and dying processes. When these variations are better understood it may be possible to explain some of the peculiar differences that arise in clinical problems."

The electron microscope in spite of its cost is becoming more familiar to researchers in the medical, biologic and industrial fields. Electrons are accelerated electrically between a filament and a condenser to a high speed or energy. The microscope is a high vacuum instrument to prevent a collision of these electrons with air molecules. Specimens required for electron microscopy are much thinner than those used in the conventional optical microscopes.

Although the use of the instrument is not limited to bacteriology and virology, its more apparent usefulness for those concerned with health problems lies in these fields, says the editorial.

NEWS OF THE STATE



COOK

Society News.—Doctor Oscar J. Becker recently spoke on "Plastic Surgery of the Ear" before the American Otorhinologic Society of Plastic and Reconstructive Surgery in New York.—The Chicago Rheumatism Society was addressed March 29 by Dr. Michael H. Ebert, Rush professor of dermatology, University of Illinois College of Medicine, on "Dermatologic Manifestations of Rheumatic Diseases." Dr. Frederick R. Schmidt, assistant professor of dermatology, Northwestern University Medical School, opened the discussion.—Dr. Walter J. Reich discussed "Practical Procedures in Minor Gynecology" for a recent meeting of the Wayne County Medical Society in Detroit.—Dr. Maurice H. Cottle addressed the Colorado Otolaryngological Society in Denver, April 12 on "Physiological Basis for Rhinoplastic Procedures.".—Dr. Philip Thorek addressed the second annual meeting of the Oklahoma Academy of General Practice in Muskogee, March 27 on "Large Bowel Surgery." He spoke before the Annual Alumni Association of the University of Buffalo, April 1 on "Acute Appendicitis.".—Dr. Edwin R. Levine participated in a postgraduate course given by the American Trudeau Society and the University of Tennessee, March 21, in Memphis, by presenting "The Clinical Diagnosis and Treatment of Pulmonary Emphysema."

Subsidiary Scholarship Created.—An anonymous donor has given ten thousand dollars to the Chicago Medical School to create a subsidiary scholarship which will be used to subsidize the complete education of a medical student at the school for a period of four years. According to Dr. John J. Sheinin, president of the school, the gift was made in honor of Drs. Milton S. Saslow, Howard A. Engle and Morris Blau of Miami Beach.

University News.—Dr. Charles H. Best, professor of physiology and director of Banting-Best department of medical research, University of Toronto, gave an assembly hour lecture at the University of Illinois, April 12 on "Hormonal and Dietary Regulation of Fat Metabolism.".—Dr. F. Bentley, professor of surgery, University of Durham, gave a similar lecture, April 5, on "Problems in Visceral Blood Flow."

Clinical Heart Meeting.—The clinical section of the Chicago Heart Association, on April 11, devoted its program to the following:

Presiding: Ford K. Hick, M.D., Chairman, Clinical Section Committee; Don C. Sutton, M.D., Program Chairman, Cook County Hospital.

PROGRAM

Heart Failure of Obscure Etiology Occurring in the Post Partum Period. W. R. Meadows, M.D.

Acute Benign Pericarditis. Edward R. Elisberg, M.D.

Subacute Bacterial Endocarditis, Simplified Therapy in Selected Cases by Daily Injections. Italo F. Volini, M.D.

Congenital Methemoglobinemia. Benjamin M. Gasul, M.D.

Dynamics of Interauricular Defects and Right Ventricular Hypertension. O. Prec, M.D.

Pathological Conference. Hans Popper, M.D., Edmund Foley, M.D., Chauncey C. Maher, M.D.

Branch Meetings.—The North Shore Branch of the Chicago Medical Society was addressed April 4 by Drs. Danley P. Slaughter on "Newer Concepts in the Treatment of Carinoma" and Robert J. Jensik on "Carcinoma of the Lung, Diagnosis and Treatment."—Dr. Harry J. Dooley addressed the Northwest Branch, April 7, on "Urinary Calculi" and Dr.

F. Lee Stone, May 5, on "Early Ambulation in Pelvic Surgery."

Special Lectures.—Dr. Jesse E. Edwards, assistant professor of pathologic anatomy, Mayo Foundation, University of Minnesota, will deliver the twenty-sixth Ludvig Hektoen Lecture of the Frank Billings Foundation, Institute of Medicine of Chicago, Friday evening, May 26 at the Palmer House, on "Structural Changes of the Pulmonary Vascular Bed and Their Functional Significance in Congenital Cardiac Disease."—The Institute of Medicine of Chicago on April 28 heard Dr. Cyrus C. Sturgis deliver the ninth Edwin R. Kretschmer Memorial Lecture on "An Evaluation of the Nature, Treatment and Prognosis of Leukemia." Dr. Sturgis is professor of medicine at the University of Michigan School of Medicine and director of the Thomas Henry Simpson Memorial Institute for Medical Research.

Dr. Maddock Given New Post.—Appointment of Dr. Walter G. Maddock as the Edward G. Elcock Professor of Surgery at Northwestern University Medical School was announced recently by J. Roscoe Miller, president of the University. The Elcock professorship was made possible by a gift in 1923 from Edward G. Elcock, prominent Chicago industrialist, who died in 1934. Mr. Elcock was president of the Hansell-Elcock Company.

Personal.—Dr. Robert G. Bloch has been appointed member of the medical advisory committee of Research Foundation. The foundation is the non-profit group subsidizing research production and distribution of the anti-tuberculosis vaccine, BCG, at Tice Laboratory, Chicago. — Dr. George H. Pollock, of the University of Illinois College of Medicine has been awarded a fellowship in the amount of $4,000 by the Commonwealth Fund of New York City. The fellowship covers a period of one year and will enable Dr. Pollock to complete his present training at the Illinois Neuropsychiatric Institute. During the coming year, he will receive experience in intensive psychotherapy under supervision.

Dr. Pollock is an assistant in the department of psychiatry and a resident in the University's Research and Educational Hospitals at the present time. Dr. Max Thorek, Chicago, has recently been awarded an Honorary Fellowship in the Vienna Medical Society, Vienna, Austria.—Dr. Loyal Davis has been named national chairman of a campaign to raise five hundred thousand dollars for the Archibald Church library at Northwestern University Medical School.—Dr. Herbert E. Schmitz has been named to the president's council of Loyola University which is a group of civic leaders who advise on financial and educational matters.—Dr. Louis D. Moorhead was recently awarded the order of knight commander with grand cross and star, highest honor in the Knights of St. Gregory. The award was presented by Cardinal Samuel Stritch on behalf of Pope Pius XII.—Dr. Chauncey Cadmus was honored at a special program recently marking his completion of nineteen years of service to the La Grange Legion Post No. 41. He was given a special Legion cap emblematic of his appointment of medical officer for the Legion fifth district.

GREEN

Dr. Garrison Retires.—Dr. William H. Garrison, White Hall, on March 15 retired from the active practice of medicine after two days less than fifty-three years, according to the Jacksonville Courier. Dr. Garrison graduated at the Missouri Medical School and began practice at Pearl, Illinois, March 17, 1897. He has been practicing in White Hall for about thirty years. He recently retired as secretary of the Green County Medical Society, having served in the position for twenty-three years.

HENRY

Eighty Years of Age.—Dr. C. W. Carlson, who has been practicing in Woodhull since 1907, observed his eightieth birthday March 26. Dr. Carlson graduated at Rush Medical College in 1903.

KNOX

Society News.—At a meeting of the Knox County Medical Society at the Galesburg Club recently, Dr. Carlo Scuderi, Chicago, spoke on "Backache from an Orthopedic Standpoint" and Dr. F. M. Huff was elected alternate delegate to the Andy Hall Annual Meeting of the Illinois State Medical Society, May 23-24-25.

LA SALLE

Personal.—Dr. M. H. Sawyer, Ottawa, was recently named coroner of La Salle county, filling the unexpired term of the late Dr. A. J. Roberts.

LAWRENCE

Classes for Expectant Mothers.—The Lawrence County Medical Society and the Lawrence-Wabash Health Department cooperated in a series of seven informal classes for expectant mothers which opened March 15. The instruction was given by public health nurses under the direction of Dr. Dale E. Scholz. Subjects covered in the series were How Does Your Baby Grow, Your Way of Life During Pregnancy, Preparation for Labor and Baby's Birthday—After Care of Yourself and Baby, Baby's Things and Bath Demonstration, Diet During Pregnancy and Lactation, Baby's First Year and Your Child's Growth and Development.

MACON

Society News.—The Macon County Medical Society was addressed March 21 by Drs. Carl Huber, professor of gynecology, Indiana University School of Medicine, and J. A. Campbell, radiologist, Indiana University Hospitals. The subject was "The Treatment of Carcinoma of the Female Genital Tract."

MADISON

Society News.—Dr. A. Norman Arneson, associate professor of gynecology and radiology, Washington University School of Medicine, St. Louis, discussed

"Carcinoma of the Cervix" before the Madison County Medical Society, April 6.

Dr. Barnsback Honored.—At a testimonial dinner, March 18, given by the Madison County Medical Society, Dr. R. S. Barnsback, Edwardsville, was presented with the certificate and emblem signifying membership in the Fifty Year Club of the Illinois State Medical Society. The presentation was made by Dr. F. Garm Norbury, councilor of the Sixth District. Dr. Eugene Wahl gave a talk on "The Life and Times of Dr. Barnsback."

MORGAN

Society News.—Dr. Augusta Webster addressed the Morgan County Medical Society, April 13, on "Obstetrical Hemorrhage."

PEORIA

Society News.—Father Michael I. English, Regent of the Stritch School of Medicine of Loyola University, addressed the Peoria Medical Society recently on "Medical Education Under Private Auspices."

ROCK ISLAND

Personal.—Dr. Zoltan Glatter has been appointed assistant superintendent of East Moline State Hospital.

District Meeting.—Dr. Robert Zollinger, professor and chairman of the department of surgery, University Hospital, Columbus, addressed the Iowa-Illinois Central District Medical Association at a meeting in Rock Island, March 22, on "Practical Aspects of Nutrition in Surgical Patients." Dr. James Miller, Rock Island, spoke on "Polycystic Disease of the Kidney" at the meeting. The Association will be addressed May 31 by Drs. Wright Adams, professor of medicine and dean of the University of Chicago School of Medicine and Philip Thorek, Chicago, on "The Acute Abdomen."

SANGAMON

Society News.—Dr. Walter G. Maddock, Chicago, addressed the Sangamon County Medical Society, April 6, on "Principles for the Selection of Parenteral Fluids."

ST. CLAIR

Observes Eightieth Birthday.—Dr. Fred Rose, Millstadt, observed his eightieth birthday, March 11. A family dinner marked the celebration for Dr. Rose who is still in active practice.

GENERAL

Hospital Superintendents Named.—Dr. Charles K. Bush and Dr. Ernest Klein have been appointed superintendents of the Dixon State and Kankakee State Hospitals, respectively, effective April 1. Both physicians have been serving as acting superintendents at the institutions.

Applications for Aid Studied.—Applications for state and federal aid to local hospitals for construction of facilities for chronically and mentally ill patients were reviewed by the state Advisory Council on Hospitals in a May 11 meeting in Springfield.

A total of $1,500,000 in governmental funds is available to Illinois hospitals for these special projects during the fiscal year beginning July 1, 1950.

Dr. Roland R. Cross, director of the state Department of Public Health, said that applications for state and federal assistance for the construction of chronically or mentally ill facilities must be submitted to him by April 20.

The applications are to take the form of a projected program for the care of such patients, he stated.

Grants-in-aid for the special projects are allotted under the provisions of the Hill-Burton Act. Local hospitals provide approximately 50 per cent, the federal government, 38.8 per cent, and the State, 11.2 per cent of the total cost of each project.

HEALTH DEPARTMENT ACTIVITIES

Chicago's Health.—According to a report from Dr. Herman N. Bundesen, president of the Chicago Board of Health, 1949 was a healthy year for Chicagoans. Final statistics released by the Health Department show that births were up from 77,443 in 1948 to 78,553 in 1949 — while deaths were down from 37,879 to 37,781. 1949 births were the second highest on record, exceeded only by the 82,735 reported in 1947. The birth rate in 1949 was 21.2 per 1,000 population, as compared with 21.1 per 1,000 in 1948, and the death rate was 10.2 as compared with 10.3.

Maternal and Child Welfare

Maternal deaths last year were again held down to 0.7 per 1,000 live births, the record low established in 1948. The infant death rate was 28.8 per 1,000 live births in 1949, as against 28.5 per 1,000 in 1948.

Chicago's success in saving the lives of mothers and infants is attributed in part to round-the-clock enforcement of the city's "Regulations for the Conduct of Maternity Hospitals and Nurseries for the Newborn" to insure proper medical care for every mother and newborn infant and to protect them from infection.

Another important factor in Chicago's record was the Department's premature infant program. In 1949 there were 5,764 premature infants registered for special attention and follow-up, and 614 "premies" were transported to premature stations by the Health Department incubator ambulance service. The twenty Department heat beds were used in caring for 95 premature and immature infants that were unable to maintain normal body temperature.

As another part of the Department program to save the lives of premature, immature and sick babies, 70,000 ounces of mothers' breast milk were distributed free of charge to 1,000 infants in 1949.

Communicable Diseases

For the first time on record, there were no deaths from diphtheria in Chicago in 1949 and only 5 cases were reported for the entire year. Scarlet fever deaths were held to zero for the fourth straight year. There were no deaths from typhoid fever in 1949, and

tuberculosis deaths, although 1,269 were reported, continued the decline begun in 1948.

There were 2,137 cases of whooping cough and 14 deaths reported in 1949, an increase over the 1,096 cases and 4 deaths reported in 1948.

Poliomyelitis cases and deaths were up, as compared with the previous year. There were 479 cases and 30 resident deaths reported in the city last year, as against 312 cases and 10 resident deaths reported in 1948.

Venereal Disease

Venereal disease cases continued to decline from the peak reported in 1946, and the number of syphilis cases reported in 1949 (8,317) was the lowest for any year since 1933. By the end of 1949, syphilis had dropped to 49% of the number reported in 1946.

Gonorrhea was also down, with 23,432 cases reported for the year compared with 26,323 cases reported in 1948.

New Health Program

With the cooperation of the United States Public Health Service, the Department in 1950 is developing a multiphasic screening program to promote the early detection of heart disease, tuberculosis, diabetes, and other so-called chronic illnesses. The program will operate as a mass health survey. Among the tests to be offered are: A miniature chest X-ray to detect cardiac and non-tuberculous chest disease as well as tuberculosis; a serologic test for syphilis; blood sugar and hemoglobin determination; urinalysis; blood pressure determination; vision and hearing screening, and height and weight measurements. Individuals whose tests suggest the need of medical care will be referred to their private physicians or to appropriate medical clinics for further diagnosis.

MARRIAGES

Dr. Elmer E. Terrell, Paris, to Miss Marjorie Cammon of Olney, recently.

Dr. Blaine L. Ramsay to Mrs. Patricia Ann Viers, both of Chicago, recently.

DEATHS

Joseph Howard Beard, Champaign, who graduated at Johns Hopkins University School of Medicine, Baltimore, in 1912, died March 6, aged 67. He was head of the University of Illinois health service in Champaign since 1916.

Lila Beers, retired, Chicago, who graduated at the Hahnemann Medical College and Hospital, Chicago, in 1897, died March 24, aged 82.

Earl E. Dale, Dwight, who graduated at Chicago College of Medicine and Surgery in 1917, died suddenly March 6, aged 56.

Hugo O. Fenske, Chicago, who graduated at Loyola University School of Medicine in 1942, died in Grant Hospital, March 27, aged 39.

Clarence W. Hopkins, retired, Elmhurst, who graduated at Northwestern University Medical School in 1901, died March 17, aged 77. He was chief surgeon for the Chicago & North Western Railway for many years.

William Henry Lange, Chicago, who graduated at Loyola University School of Medicine in 1919, died December 1, 1949, aged 57.

George M. Lucas, Jacksonville, who graduated at Northwestern University Medical School in 1920, died April 1, aged 55. He had joined the staff of Jacksonville State Hospital in January, 1949.

Charles H. McDonald, Arther, who graduated at Rush Medical College in 1904, died March 3, aged 73.

Thomas Rhea Maxwell, retired, New Berlin, who graduated at the University of Louisville School of Medicine in 1916, died March 13, aged 65.

Cosmo Misischia, Joliet, who graduated at Chicago Medical School in 1932, died March 8, aged 44.

Frank Louis Nathanson, Chicago, who graduated at the College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, in 1908, died Feb. 13, aged 68.

Cyrus F. Newcomb, Champaign, who graduated at the University of Illinois College of Medicine in 1904, died recently, aged 70. He was acting director of the Champaign-Urbana Health District at Champaign.

David Martin Rettinger, Stockton, who graduated at Chicago Medical School in 1945, died in St. Francis Hospital, Freeport, February 2, aged 29, of injuries received in an automobile accident.

Colin K. Ross, Newman, who graduated at Bennett College of Eclectic Medicine and Surgery in 1911, died March 16, aged 65, of injuries received in an automobile accident.

Orlando F. Scott, Chicago, who graduated at Rush Medical College in 1908, died March 22, aged 65. He was director of the National Detection of Deception Laboratory.

Lewis Allen Whipple, Peoria, who graduated at Chicago College of Medicine and Surgery in 1905, died suddenly in his home, March 21, aged 74.

"FOR THE COMMON GOOD"

Health Talk in Pioneer Telecast.—On Saturday evening, May 6, "Guardians of Your Sleep" was presented over WBNS-TV as a special session of the Institute for Education by Radio in Columbus, marking the first time that television was made a formal part of the institute. Participants in this telecast, which was presented first over WGN-TV in Chicago, August 10, 1949, were Dr. Max S. Sadove, associate professor and head of the division of anesthesia, University of Illinois College of Medicine; Dr. James H. Cross, clinical assistant in surgery at Illinois; Dr. Allen Talbott, resident in anesthesia, Veterans Administration, Hines; Dr. Theodore R. Van Dellen, assistant dean, Northwestern University Medical School, and Medical Editor of the Chicago Tribune; Mr. Edward Pelikan, senior pharmacology student at Illinois, who portrayed the "patient", and Miss Sarah Timms, R.N., supervising nurse, Surgical Pavilion, Ohio State University Hospital. Cosmo Genovese, WGN-TV producer, was also present.

The Chicago participants went by plane for the presentation. Abbott Laboratories and the Ohio Chemical Company cooperated in the event, with the latter's Columbus dealers, the Columbus Hospital Supply Company and the Wendt-Bristol Company, making equipment available.

Health Talk is presented as a weekly feature by the Educational Committee of the Illinois State Medical Society in cooperation with WGN-TV. Since the last issue of the Illinois Medical Journal, the following telecasts have been presented:

Reading Difficulties in Children, Dr. George E. Park, Alfred Schmiding, March 21, which pointed to the special work being done at Dyslexia Memorial Institute.

Small Game Hunting in Africa, March 28, in which Dr. Carroll Birch showed masks worn by the medicine men of Africa and covered the subject of tropical disease.

The Second Child Arrives, April 4, a repeat telecast with Dr. Lawence Breslow, Mrs Richard Vonalbrecht, Ricky 4, and Bonnie Dhu, six months.

The Rh Factor, April 10, with Israel Davidsohn and Mrs. John Ruberry, Joan, 21 months and Kathleen Anne, two and a half months participating.

Radio

In the series of radio transcriptions over FM Station WFJL, titled **"Your Doctor Speaks"**, the following physicians have participated:

Carlo Scuderi, April 13, Care of the Feet.

Herbert E. Schmitz, April 20, Cancer.

Morris Friedell, April 27, The Atom and Medicine.

Ford K. Hick, May 4, Social Problems Diabetic Patients Have to Meet.

Lectures Arranged Through the Educational Committee:

Hobart Wallace, Peoria, Girls' Physical Education Classes in Chillicothe, March 23, Posture and Poise.

Peter T. Gray, Sterling, Mendota Junior Woman's Club, April 4, in Mendota, Good Health.

Alfred D. Biggs, Taylor School, April 18, Youth Week program, Keeping Solid with Health.

Earle E. Wilson, Oak Park, Ladies Guild, First Gethsemane Lutheran Church, April 19, on Growing Old Gracefully.

Lowell T. Coggeshall, Temple Sholom Men's Club, April 19, Chicago as a Medical Center.

W. W. Bolton, Chicago, Senior Health Education Class at Kelvyn Park High School, April 20, on Mental Well Being.

Alfred S. Traisman, Chicago, "Y" Boys' Mothers Club, April 26, on Understanding the Adolescent.

Eugene T. McEnery, Chicago, Youth Week, Emmet School, May 8, How Tempermental Are You?

Sol Ditkowsky, Hayt Elementary School, Youth Week May 10, Building Body Bones and Beauty.

Robert E. Lee, Hale Elementary School, Youth Week, May 10, Teen-Age Tips on Health.

Harry J. Dooley, The Latones at the YMCA, Chicago, May 10, Sex Education.

Ralph Spaeth, Parker High School, Youth Week, May 11, Teen Age Tips on Health.

Emerson K. McVey, Lowell Girls Club in Harvey, May 17, on Understanding the Adolescent.

Lectures Arranged Through the Scientific Service Committee:

J. Keller Mack, Springfield, Effingham County Medical Society, March 30, in Effingham, on Infant Feeding.

John C. Scully, Chicago, Effingham County Medical Society in Effingham, April 13, on Diseases of the Thyroid.

Harry M. Hedge, Chicago, Bureau County Medical Society and the County Bar Association in Princeton, April 20, Let George Do It: Why Not?

Donald S. Miller, Chicago, DeKalb County Medical Society in DeKalb, April 25, Treatment of Common Fractures of the Hip.

H. Close Hesseltine, Chicago, McDonough County Medical Society in Macomb, April 28, on Therapeutic Advances in Obstetrics.

James R. Webster, Chicago, Bureau County Medical Society in Princeton, May 9, Dermatitis in General Practice.

Eugene F. Traut, Oak Park, and George Byfield, Chicago, St. Anthony May Clinic Day, May 10, on Arthritis and Hypertension, respectively.

Lindon Seed, Chicago, Whiteside and Lee County Medical Societies in Rock Falls, May 11, on Present Status of Surgical Therapy of Goiter.

Paul A. Campbell, Chicago, Effingham County Medical Society in Effingham, May 11, on Dizziness.

Symposium on "What's New in Medicine", Will-Grudy County Chapter of the Illinois Chapter of the American Academy of General Practice, May 17, in Joliet: John J. Fahey, senior orthopedic surgeon, St. Francis Hospital, Evanston; Harold C. Boris, clinical professor of neurosurgery, Stritch School of Medicine of Loyola University, and J. Charles McMillan, assistant clinical professor of medicine, University of Illinois College of Medicine.

Philip Thorek, Chicago, Effingham County Medical Society in Effingham, June 8, on Abdominal Surgery.

Louis R. Limarzi, Chicago, Iroquois County Medical Society in Watseka, June 20, on Management of the More Common Blood Disorders.

Postgraduate Conference in Peoria.— A Postgraduate Conference for the Fourth Councilor District was held at the Pere Marquette Hotel, Peoria, April 20, with the Peoria Medical Society acting as host and with James W. Sours, Peoria, and Charles P. Blair, Councilor of the District, presiding. The following Chicago speakers participated:

Eugene F. Traut, clinical associate professor of medicine, University of Illinois College of Medicine, Arthritis: Current Treatment.

Edwin Irons, attending staff, Presbyterian Hospital, Treatment of Infectious Diseases: The Newer antibiotics.

Eugene A. Hamilton, clinical instructor in bone and joint surgery, Stritch School of Medicine of Loyola University, Low Back Pain.

Lindon Seed, clinical associate professor of surgery at Illinois, Acute Conditions of the Abdomen: Early Diagnosis.

Louis R. Limarzi, associate professor of medicine at Illinois, Infectious Mononucleosis.

A roundtable concluded the afternoon session. In the evening, following dinner, William A. Brams, associate professor of medicine, Northwestern University Medicine School, discussed Treatment of Heart Disease.

REPORT NEW TREATMENT FOR CARBON MONOXIDE POISONING

Chicago—Treatment of suffocation from carbon monoxide gas by injections of procaine hydrochloride, a local anesthetic, is reported in the April 8th Journal of the American Medical Association by three Los Angeles doctors.

Seventeen of a group of 23 patients who received the new treatment made good recoveries, Drs. Edwin W. Amyes, John W. Ray and Norman W. Brockman of the College of Medical Evangelists and University of Southern California School of Medicine say.

The remaining six patients either died or did not fully recover. In this group the drug was given long after the exposure to carbon monoxide, or there were additional complicating factors, according to the doctors.

All except one of the 23 patients had become unconscious in a room in which there was no ventilation and where an open gas flame was burning.

Procaine hydrochloride previously had been used by doctors in France to treat prolonged coma due to carbon monoxide poisoning. They reported startling improvement in a few cases, the Los Angeles doctors say. Treatment of this condition theretofore had been unsatisfactory.

Studies indicate that carbon monoxide suffocation results in a disturbance of the blood supply of the brain. The Los Angeles doctors believe that part of the effect of procaine hydrochloride in carbon monoxide suffocation may be due to stimulation of the brain.

Potent ORAL PENICILLIN for All Age Groups



White's **drop-cillin** —a truly palatable liquid for drop-dosage to infants and small children—administered direct from the dropper or added to the first ounce or two of formula or other liquid—no tablets to crush, in suitable cases no unwanted injections—

50,000 UNITS* IN ONE DROPPERFUL



White's **dram-cillin** —for children and adults—the pleasant palatability which assures round-the-clock dosage—high potency in convenient dosage:

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DROP-CILLIN—Supplied in 9 cc. "drop-dosage" bottles containing 600,000 units of penicillin. Solution is pink in color. Accompanying calibrated dropper (filled to mark) delivers approximately 20 drops (0.75 cc.) containing 50,000 units of penicillin.*

DRAM-CILLIN—in 60 cc. "teaspoonful-dosage" bottles containing 1,200,000 units of penicillin. Solution is ruby-red in color. Each teaspoonful (approximately 5 cc.) provides 100,000 units of penicillin.*

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Supplied to the pharmacist as a dry white crystalline powder. Dispensed freshly prepared, these delicious vanilla-flavored solutions will retain full stated penicillin potency for seven days when refrigerated.

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PHYSICAL MEDICINE ABSTRACTS



SUTURE OF PERIPHERAL NERVES: FACTORS AFFECTING PROGNOSIS

John W. Kirklin, M.D., Francis Murphey, M.D., and Joseph Berkson, M.R. In SURGERY, GYNECOLOGY AND OBSTETRICS, 88:6:719, June 1949.

All who have cared for patients in whose case a peripheral nerve has required suture know that complete recovery of function of the involved nerve does not always occur. Yet it also is known that under the proper circumstances an extremely gratifying recovery can ensue.

These date lend factual confirmation to the results of many previous studies, and also the impressions of many who have managed peripheral nerve injuries. Complete recovery of function, to a degree comparable to the normal state, is indeed rare after nerve suture. Eminently satisfactory recoveries, however, can be obtained in many instances.

The patient's interests are best served by accurate end-to-end anastomosis of the nerve within three months after injury and preferably in the first month after injury. High-lying injuries, such as those of the brachial plexus, should be an especial stimulus to early repair. However, repair is of value, though limited, when done as long as 15 months after injury. Beyond this point, motor recovery will rarely result but some return of crude sensory function may occur.

POSTURE

J. T. Aitken, M.B., Ch.B. In THE BRITISH JOURNAL OF PHYSICAL MEDICINE, 12:4: 92, July-August 1949.

Posture is the attitude or carriage of the body. Observation of people standing queues or on stations shows that the human body is carried in a great variety of ways, and that in any individual there is a constant change. Within a few minutes, the weight is carried down one leg, then the other or down both legs. The way in which the nonweight-bearing leg is used for balancing purposes also varies, as do the positions of the hands and arms. At one moment the body is held erect and on the alert, and the next moment it is allowed to relax and slouch.

In view of all this change, it is desirable to recognize certain well-known attitudes of the body. When the person is "standing at attention" he has his heels together, the weight is evenly distributed down both legs and the arms are placed at the sides of the trunk. Usually the body leans forward slightly and almost all the muscles are taut. Much energy is used in this attitude which is rarely found outside military life. The "stand-at-ease" position allows of some relaxation of the muscles from the "attention" position; the heels are separated and the forward leaning of the body is reduced. The

(*Continued on page 42*)

"In addition to the relief of hot flashes and other undesirable symptoms (of the climacteric), a feeling of well-being or tonic effect was frequently noted" after administration of "Premarin."

Harding, F. E.: West. J. Surg. Obst. & Gynec. 52:31 (Jan.) 1944

"All patients (53) described a sense of well-being" following "Premarin" therapy for menopausal symptoms.

Neustaedter, T.: Am. J. Obst. & Gynec. 46:530 (Oct.) 1943.

"It ('Premarin') gives to the patient a feeling of well-being."

Glass, S. J., and Rosenblum, G.: J. Clin. Endocrinol. 3:95 (Feb.) 1943

"General tonic effects were noteworthy and the greatest percentage of patients who expressed clear-cut preferences for any drug designated 'Premarin.'"

Perloff, W. H.: Am. J. Obst. & Gynec. 58:684 (Oct.) 1949.

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weight is again transmitted down both legs, and this is the usual attitude of a person on the alert in civilian life. In the "stand-easy" position, the weight usually is carried by one leg, the other being used to help to balance the body, and little energy is expended, for most muscles are relaxed and at rest.

VENOUS THROMBO-EMBOLIC PHENOMENA: THEIR ABSENCE IN PARAPLEGIC AND TETRAPLEGIC PATIENTS

Albert W. Cook, Lt. (j. g.) M.C., U.S.N.R., and Harold A. Lyons, Comdr., M.C., U.S.N. In THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES, 218:2:155, August 1949.

The observation is made that a group of 45 paralyzed veterans represent a total of 115 man-years in which their lower extremities have not been moved voluntarily. They have been subjected to approximately 175 surgical procedures. Up to the present there has been no death in this group from a pulmonary embolus.

Data concerning the coagulation mechanism of the blood of these patients are presented and shown not to be consistent with the idea that the blood of these patients clots subnormally. Other factors producing injury to the vein walls in the lower extremities and favoring venous stasis in these limbs are reviewed.

From the data obtained we believe that the following conclusions are warranted: (1) The young average age of the patients in this group accounts for the absence of fatal pulmonary embolizations; (2) The age of bed-rest patients is one of the chief determinants of the occurrence of lethal thrombo-embolic phenomena; (3) The basis for the influence of advancing age on the incidence of thrombo-embolisms may be, in part, the concomitant decrease in the human source of heparin, the mast cells.

THE MECHANISM OF THE STRUCTURAL CHANGES IN SCOLIOSIS

Alvin M. Arkin, M. D. In THE JOURNAL OF BONE AND JOINT SURGERY, 31-A:3:519, July 1949.

It has been shown how a functional, non-wedged curve can progress into a fixed structural scoliosis. Although a discussion of the etiology of the preceding functional curve is not within the scope of this paper, it may be assumed that the initiating cause of the functional curve, in some cases at least, may continue to contribute to the structural scoliosis which follows.

Whatever the cause of the functional curve, as soon as it has produced a deviation exceeding a certain critical value, the factors described in this paper come into play and the spine has embarked on the course of epiphyseal compression and structural scoliosis. It is possible that such factors as rapidity of growth, heredity, and sex, and pathological processes, such as rickets, may modify the quantitative relationship between pressure and growth arrest.

Obviously the best treatment is prevention, by correcting postural deviations, whether in the anterioposterior or the lateral plane, or both, before they progress to structural changes. In a severe curve, plaster jackets and braces cannot completely relieve the epiphysis of the pressure induced by the superincumbent weight, tremendously multiplied as it is by the mechanical arrangement which obtains. Recumbency, of course, removes the superincumbent weight completely. A combination of these two methods (jackets plus recumbency) would seem to offer the better prospect of successful conservative treatment.

(1) The vertebral deformation of structural scoliosis can be explained by an asymmetrical disturbance of epiphyseal growth by pressure.

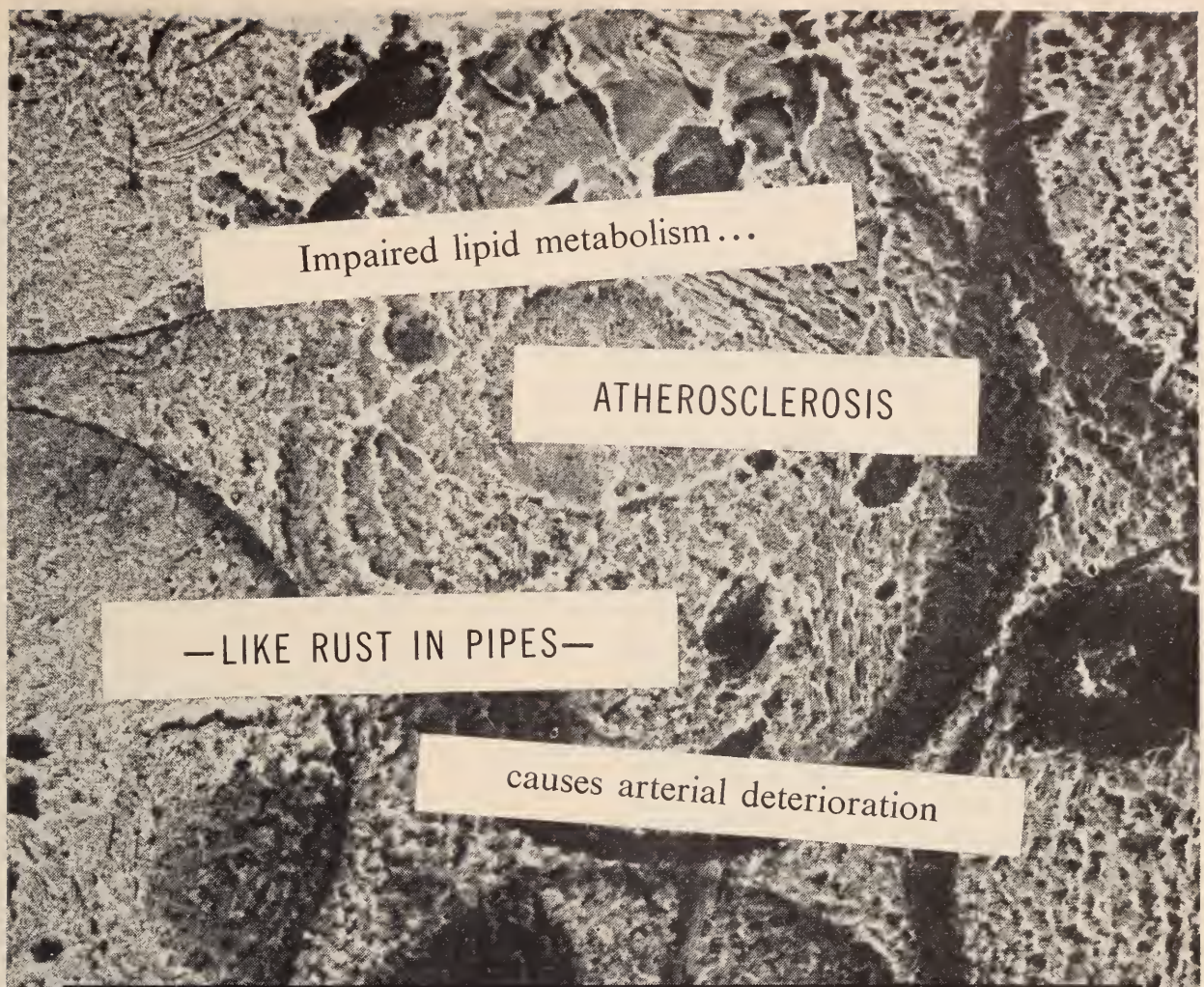
(2) "Vertebral epiphysitis" is a related lesion.

INTRA-ARTICULAR TEMPERATURE AS A MEASURE OF JOINT REACTION

Steven M. Horvath and Joseph L. Hollander. In THE JOURNAL OF CLINICAL INVESTIGATION, 28:3:469, May 1949.

Clinicians studying rheumatic diseases have long used the surface temperature over the joints as indicative of the degree of synovial reaction. Many of the terms used in rheumatology imply temperature changes in the joint tissues, viz. "the acute hot joint of gout," "the cold swelling of chronic rheumatoid arthritis," the so-called "friction effect" or "heating-up" of osteoarthritic joints following exercise, or "articular jelling" (implying excessive joint cooling and stiffening on prolonged rest). Many measurements have been made of the skin temperature over diseased joints, but no study on intra-articular tem-

(*Continued on page* 44)



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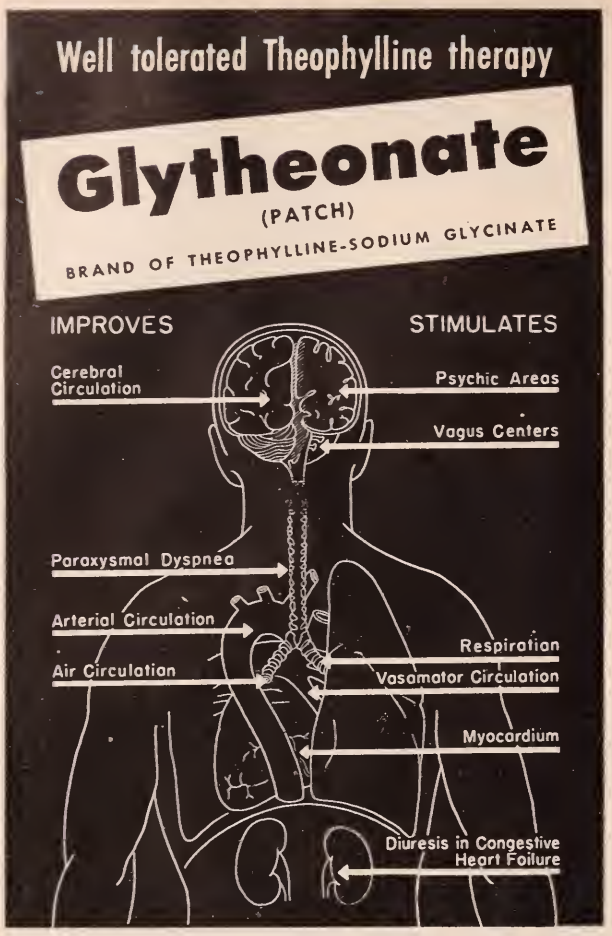
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Also tablets with Phenobarbital, tablets with Phenobarbital and Racephedrine and tablets with Phenobarbital and Rutin.

1. Paul, W. D., and Montgomery, A. E.: J. Iowa State M. Soc. 38:237 (June) 1948.
2. Bubert, H. M. and Cook, S.: S. Med. Journ. 41:146 (Feb.) 1948.

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Physical Medicine (Continued)

peratures in human joints has been reported. Several studies have been made of intra-articular temperatures in dogs and one study was performed on the stifle joint of a horse to determine the coefficient of friction within the joint, with and without synovial fluid.

(1) A method for determination of the temperature of the articular cavity has been developed which appears to have a practical use both to measure the degree of inflammation in the joint and to determine the effect of external influences on joints.

(2) Intra-articular temperatures correlated somewhat more closely than the surface temperatures over the joint with the linical activity of rheumatoid arthritis.

(3) The joint temperatures in degenerative diseases were higher than anticipated from relative clinical activity. This might be related to greater joint friction effects and to retarded cooling.

(4) The joint temperature fell when hot packs were applied over the joint, and rose with the application of cold packs. The magnitude of these responses was affected by seasonal influences being greater in the winter than in the summer.

DIAGNOSIS AND TREATMENT OF MULTIPLE SCLEROSIS

Hans H. F. Reese, University of Wisconsin Medical School, Madison. In POSTGRADUATE MEDICINE 6:8:127. August 1949.

All treatments as advocated must be accompanied with rest cures. The patient should, however, not be inactivated, but under guidance must at once start reeducational exercises in recumbent and upright positions and start very soon walking and balancing functions.

CONCLUSION

The treatment is to be individualized in a broad sence supporting. Only in selected early cases, if the patient is not sensitive to histamine, histamine infusions as advocated by Horton of the Mayo Clinic will give good results. The main activity in the restoration of the static and equilibratory functions are supervised re-educational exercises for the whole body system which thereafter have to be continued at least two,

(*Continued on page* 46)



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preferably four, times daily by the patient. Intercurrent infection in a given case with established multiple sclerosis necessitates bed rest and the usual precautions against dissemination of an infection.

THE ROCKING BED — ITS USE IN POLIOMYELITIS

Maurice Lenarsky, N. D. New York In ARCHIVES OF PEDIATRICS 66(8) :8:399 August, 1949.

The rocking bed introduced for the treatment of cardioscular and peripheral vascular diseases, and its adaption for use to provide artificial respiration in acute poliomyelitis are discussed.

Two poliomyelitis patients with respiratory failure treated effectively on a rapid rocking bed (Davidson undulating bed) are described.

It appears from this experience that in acute anterior poliomyelitis, the rapid rocking bed does not replace the respirator in the treatment of patients with severe respiratory failure; it is supplementary to, and an aid in, weaning patients from the respirator. The rocking bed can be of primary use, however, in mild or moderately severe cases of respiratory failure, and in cases where the indications for resort to the respirator are not decisive.

Poliomyelitis patients treated on the rocking bed are more accessible for nursing care and more intensive physical therapy.

THE EFFECTS OF ULTRAVIOLET RADIATION ON THE EXPOSED BRAIN — EXPERIMENTAL STUDY

Guy L. Odom, Henry M. Dratz and F. V. Kristoff, Durham, N. C. In ANNALS OF SURGERY, 130:1:68, July 1949.

The use of ultraviolet radiation in the operating room was introduced by Hart in 1936, thereby adding another effective measure for the control of postoperative wound infection. Hart and his associates demonstrated in subsequent publications that air-borne pathogenic organisms were responsible for the majority of infections in clean operative cases and that such organisms could be largely eliminated by ultraviolet radiation.

(*Continued on page* 48)

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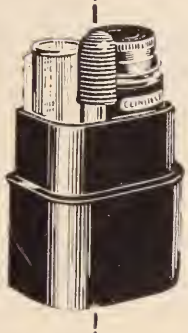
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Physical Medicine (Continued)

SUMMARY

The effects of ultraviolet radiation upon the exposed cortex first appear in approximately 30 minutes and become more pronounced as length of time is increased. These changes consist of a meningeal reaction with thickening of the arachnoid, the appearance of red and white blood cells in the sub-arachnoid space, a dilatation of blood vessels, an increase in the size of the perivascular and perineuronal spaces, the shrinkage and chromatolysis of the neurons and an increase in the size and number of the astrocytes. These changes were also noted in the brains of the animals which were exposed to air alone but they were not as marked and took a longer exposure time before they appeared. The changes in both instances become regressive if not carried beyond a certain exposure period of approximately 30 minutes.

We feel that no contraindication exists to the use of ultraviolet radiation in the neurosurgical operating room if the uninvolved cortex is protected with the same meticulous care that is mandatory in all modern neurosurgical procedures.

TENNIS ELBOW

Leland L. Swenson, M. D., Muskegon, Michigan. In THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY, 48:8:997, August 1949.

Treatment depends on the severity of the condition. In mild or early acute cases, the patients are instructed in the use of heat on the elbow followed by gentle massage. A sling may be worn: however, it has been our practice to instruct these patients to work with their elbows close to their bodies, not to reach and grasp or do any motion which causes pain. Some writers advocate plaster immobilization, e.g., the use of a cock-splint (Waston-Jones), or splinting the forearm in neutral with the elbow at ninety degrees (Stack and Hunt).

In the more chronic and severe cases, manipulation under local anesthesia may be employed.

CONCLUSIONS

1. Sixty-three cases of "tennis elbow," studied during the period 1946 through 1947, are analyzed.

2. Conservative measures, consisting of heat, massage, rest, and avoidance of motions causing

(*Continued on page 50*)

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THYROID—to stimulate metabolism and promote a feeling of well being.

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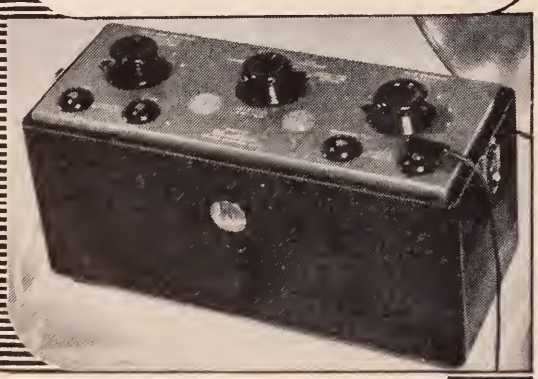
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discomfort, are generally successful. These measures are particularly successful in treating medial epicondylitis.

3. Manipulation under local anesthesia was successful in 77 per cent of the cases wherein it was used.

4. Roentgen therapy was 50 per cent successful in four cases.

5. Incision of the conjoined tendon was successful in eight cases that had proven resistant to other forms of therapy and in one case where it was the only therapy employed.

THE PATHOLOGY OF HYPERPYREXIA OBSERVATIONS AT AUTOPSY IN 17 CASES OF FEVER THERAPY

Ira Gore, M.D. (Central Laboratory, Veterans Administration, Army Institute of Pathology, Washington, D. C.) and Capt. Norman H. Isaacson, M. C., AUS (Army Institute of Pathology, Washington, D. C.).
In THE AMERICAN JOURNAL OF PATHOLOGY, 25:5:1029, September 1949.

Probably the first planned attempt to utilize increased body temperature as a therapeutic measure was made by Wagner von Jauregg in the malarial treatment of paresis.

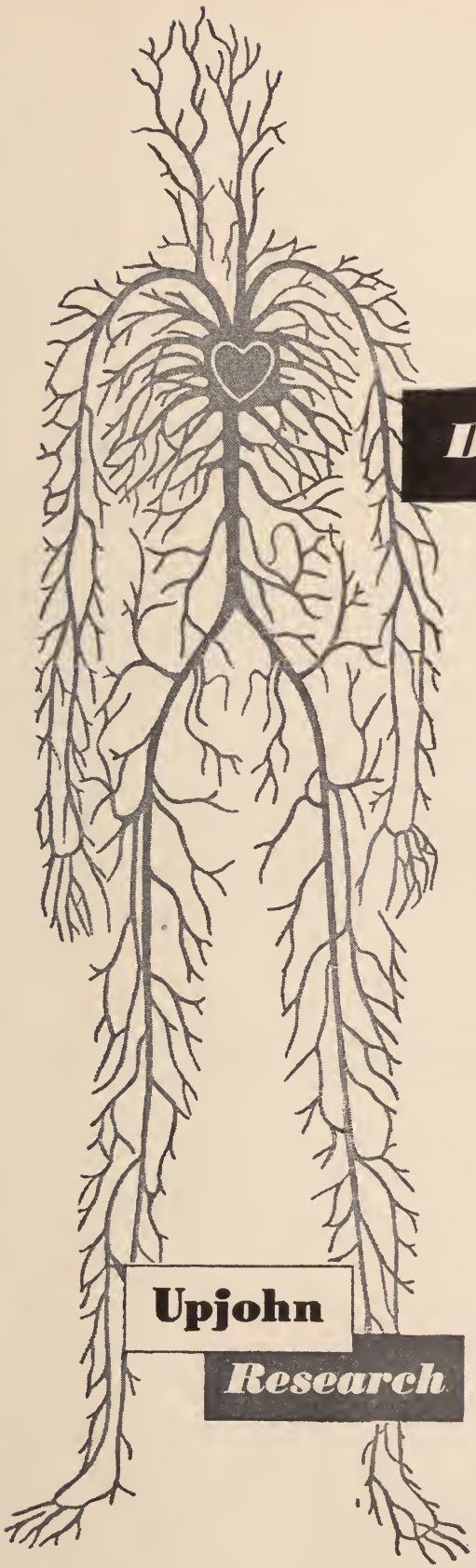
It was recognized early that fever therapy is not without danger, and rigid controls were adopted both in the selection of patients and in the method of administration. The Council on Physical Therapy of the American Medical Association, by means of a questionnaire circulated in 1934, ascertained that 29 deaths had occurred following pyretotherapy.

SUMMARY

Seventeen fatal cases of therapeutic hyperpyrexia have been reviewed to ascertain the nature of any pathologic changes that might have occurred. The underlying disease in each instance was of a type not usually associated with more than local tissue changes. Therefore, except for the complicating factors considered in the text, morphologic alterations were regarded as the result of the controlled fever.

Congestion and purpuric hemorrhages were the rule. Patients who did not die within 48 hours after the fever also exhibited jaundice. Microscopically, necrosis of cells and other degenerative changes were observed in the brain,

(*Continued on page 52*)



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Physical Medicine (Continued)

heart, liver, kidney, adrenal glands, and testes. The alterations, especially in the liver, were progressively more severe as the survival time increased. It is inferred that the absence of visible change when death is prompt merely expresses the limitations of current histologic technics.

Anoxia and deleterious effects of elevated temperature upon essential cellular enzymes and enzyme reactions are probably the essential factors in producing these pathologic effects. Fever in many conditions besides pyretotherapy may produce similar lesions.

CONSTRICTING EXERCISES TO CORRECT POSTOPERATIVE FECAL INCONTINENCE

C. M. Cooper, M. B., Ch. B. In CALIFORNIA MEDICINE, 71:5:356. November 1949.

Directed to stand up, to put her heels together, to separate widely the toe regions, and then to contract her buttock muscles, she at once felt the added protection. She was advised to walk with the feet thus splayed and while walking to practice the constricting exercises. In a few weeks the incontinence was complete corrected.

ATHETOIDS RELAX AND SPEAK

Caro C. Hatcher, Speech Therapist, Children's Hospital School, Eugene, Ore. In THE CRIPPLED CHILD, 27:1:14, June 1949.

Speech training for athetoids is one of the most challenging fields in speech therapy. Alert as these cerebral palsied persons are, observations on their part have given them a feeling of pattern and a knowledge of speech production long before they arrive at their training period. However, they are defeated in actual speech by a voluntary tension that has become habitually a part of their conduct.

We are confronted, therefore, with the major problem of dealing with this voluntary tension which is controlled only by relaxation and in diverting attention away from performance. Actual therapy does not have to be an initial part of the program; in fact, it is not necessary for some time. I feel that it should be postponed until adequate personal relationships are established and a total picture of the problem is obtained. Speech therapy per se is not likely to

(*Continued on page 54*)

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be needed with the average athetoid. The speech therapist needs to be able to deal with such problems as overprotection, non-acceptance, lack of security, improvised communication systems, etc., rather than teach proper lip and tongue movement or other mechanism performance.

Improvement in physical development is of great importance. This includes the development of the use of the limbs, particularly the hands, inducing proper breathing and encouraging chewing, sucking, and swallowing movements. An integrated program of speech therapy, physical therapy, and occupational therapy appears almost adamant in any speech rehabilitation program for the athetoid.

SIMULTANEOUS BILATERAL RUPTURE OF THE QUADRICEPS TENDON

Charles A. Steiner, M. D., and Louis H. Palmer, M. D., Upper Darby, Penna. In THE AMERICAN JOURNAL OF SURGERY, LXXVIII:5:752. November 1949.

Although numerous articles have appeared in the literature describing muscle and tendon tears, relatively few of these refer to involvement of the quadriceps tendon. Furthermore, nearly all of the reported cases of quadriceps tendon rupture are of the unilateral variety while the bilateral type is extremely rare.

Postoperatively, the patient's course in the hospital was uneventful and both incisions healed by primary intention. Penicillin therapy was begun on admission and continued for five days postoperatively. Guarded active and passive motion of the knee joints was begun on the fourteenth postoperative day and on February 13th the patient was ambulatory with the use of a cane. The patient left the hospital on February 24, 1947.

SUMMARY

1. A brief review of the incidence and of the mechanism of quadriceps rupture is presented.

2. Since no other instance of simultaneous bilateral rupture of the guadriceps tendon could be found in the literature, the case presented was believed to be of interest.

"...about 50% of the patients who consult the general practitioner have complaints for which there is no discoverable physical or organic cause"[1]

Although these patients have no apparent organic basis for their complaints, they are ill and merit attention.

In functional disorders, response to stress is effected via both branches of the autonomic nervous system. Therefore, treatment consists, where possible, in removal of the emotogenic factor (practical psychotherapy) and the "partial blockade" of the efferent autonomic pathways. The family physician is well-qualified to help these patients; his advice will do much to achieve the desired change in habits and to avoid unhealthy situations.

Medical treatment is also essential. Controlled sedation of the entire autonomic nervous system can be accomplished by simultaneous administration of bellafoline (cholinergic inhibitor), ergotamine tartrate (adrenergic inhibitor) and phenobarbital (central sedative) in the form of Bellergal. This preparation inhibits autonomic impulses without completely blocking organ function.

Karnosh and Zucker[2] state that, "Probably the best medication for all neurovegetative disorders is a combination of: (a) bellafoline . . . (b) ergotamine tartrate . . . (c) phenobarbital . . . A good commercial preparation of these ingredients is a tablet called bellergal . . . The adult dose of bellergal is 3 or 4 tablets daily."[3]

BIBLIOGRAPHY

1. WILLIAMS, V. P.: New England J. Med. *236:* 322, 1947.
2. KARNOSH, L. J. and ZUCKER, E. N.: A Handbook of Psychiatry, St. Louis, Mosby, 1945.

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. . . Although in animals, under proper conditions, cholesterol may cause arteriosclerosis, in human disease its function in the pathogenic sequence has not been completely defined. Increases in dietary or in serum fat seem to accelerate the development of lesions, as does obesity. Weight reduction, while ineffective in permanently reducing serum cholesterol, is probably a valid and valuable method of modifying the development of atheromata, and perhaps in causing reversible lesions to regress. More specific methods for modifying fat metabolism to the advantage of the patient are either not yet available or are as yet in experimental status only. In diabetes the significance of disturbed fat metabolism in the genesis of arterial disease is even less clear-cut than in the non-diabetic. *Excerpt: Some Aspects of the Relation of Cholesterol to Vascular Disease, John H. Peters, M.D., Pittsburgh, Pa., The Pennsylvania Medical Journal, February* 1950.

WHOOPING COUGH YIELDS TO ANTIBIOTIC DRUG

Chloramphenicol was given in varying doses desafe and exceedingly effective treatment for whooping cough, clinical study shows.

The drug was tested last fall in Bolivia during a severe epidemic of whooping cough which caused death rates twice as high as those in North America.

Dr. Eugene H. Payne, Detroit, of Parke, Davis and Company, the pharmaceutical house which developed the drug, and a group of Bolivian doctors report their findings in the Dec. 31 Journal of the American Medical Association.

The Bolivian doctors are Miguel Levy, Chief Medical Officer, Inter-American Corporate Service of Public Health; Gaston Moscoso Zamora; Moises Sejas Vilarroel and Edwardo Zabalaga Canelas, all of Cochabamba.

Seven children ranging in age from three months to eight years were treated with chloromycetin. All were clear of fever on the second day after the first dose of the drug was given, according to the doctors.

Coughing fits generally were greatly decreased on the second day, and in all seven patients disappeared on the fourth or fifth day.

"Since the supply of chloramphenicol [chloromycetin] was limited and there was such a large number of patients, only those who were seriously ill were treated with the drug," the doctors say.

Chloromycetin, an antibiotic drug, is a quick, easy, pending on the weight of the child, and was administered by mouth in most cases. Untoward reactions to chloramphenicol appear to be negligible."

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BOOK REVIEWS



X-Ray Treatment. Its Origin, Birth and Early History. Emil H. Grubbé, B.S., M.D., F.A.C.P. The Bruce Publishing Company, Saint Paul and Minneapolis. 1949. 153 pages. $3.00.

This small volume incorporates most of the information pertinent to the early days of x-ray from its discovery through early medical application particularly from a therapeutic standpoint. The author has set forth many of his early experiences in experimental electricity prior to the discovery of the effect of x-ray, also his experiences with the first application of x-ray in treatment of a disease condition. The narration is such that the reader in many instances lives the author's experiences.

The book is well illustrated with diagrams of early x-ray and experimental electrode tubes and numerous photographic reproductions of early sites of experimental work. Early types of equipment used in the early x-ray therapy are shown.

The historical facts pertinent to x-ray therapy are, of course, of most interest to radiologists. However, there is sufficient general information in this volume of significant medical historical value to make this work desirable in a medical library. Any physician will find some part of this volume of definite interest.

J. H. G.

An Atlas of the Blood and Bone Marrow, R. Phillip Custer, M.D., Director, Laboratories of the Presbyterian Hospital in Philadelphia; Assistant Professor of Pathology, The University of Pennsylvania School of Medicine; Consultant to the Armed Forces Institute of Pathology. 312 pp., 285 illustrations, 42 in color. $15.00. Philadelphia: W. B. Saunders Company, 1949.

One of the greatest advances of hematology in recent years has been the study of the bone marrow during life. Improvement in the technic of bone marrow biopsies has added a valuable method to diagnostic laboratory procedures to which the clinician can resort in cases in which examination of the peripheral blood fails to give definite information. Most monographs on bone marrow stress the simplicity of sternal aspiration and evaluate the sternal marrow picture from marrow smears. The atlas of the blood and bone marrow by Custer is written from a pathologist's point of view. The use of marrow sections as opposed to marrow smears is stressed in hematological diagnosis. The atlas is illustrated with black and white and color photomicrographs and there are brief discussions of morphological and clinical features of hematological conditions. Consideration on the treatment of blood dyscrasias is frequently interspersed, especially where response to treatment has a bearing on diagnosis.

The opening chapter discusses and explains the new terminology advocated by the Committee of the American Society of Clinical Pathologists. With the exception of the erythrocytic series, the new terminology is used throughout the book. A detailed description of each of the cell series is given. Normal and pathological blood destruction and extramedullary hematopoiesis are covered. Normal findings in the blood and bone marrow are discussed adequately. The author's classification of blood disorders is accurate and helpful. The discussion of anemia, and especially the hemolytic anemias is good and the illustrations are well selected. Custer emphasizes the fact that the vast majority, if not all multiple myeloma tumors are of the plasma cell

(*Continued on page* 60)

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type; and there is little or no ground for recognizing myeloblastic, lymphoblastic, erythroblastic, or megakaryoblastic forms as described in the literature. Unfortunately, the confusion concerning the classification of typical and atypical types of myeloma cell tumors is due, in a large measure, to the impression obtained from bone marrow section material in which the cell morphology may be misleading. The book contains an excellent classification of hemorrhagic states and presents a suitable workup to be done on all these patients. In idiopathic thrombocytopenic purpura the low thrombocyte level is due to greatly diminished platelet production by megakaryocytes in the bone marrow. This is the type of case in which splenectomy is more often followed by a rapid restoration of the normal platelet level and prompt relief from hemorrhage. The section on bacterial and mycotic infections and protozoan and metazoan infestations is one of the most valuable chapters of the book. The photomicrograph of an L.E. cell from disseminated lupus erythematosus has been poorly selected. It should have been stressed that the L.E. cell is seen in the bone marrow during the acute stage of the disease, less frequently in the subacute stage and practically never in the chronic or during a remission of the disease. Sections of bone marrow from cases of tuberculosis and Boeck's sarcoid showing the typical granulomatous lesion are presented, as well as sections from cases of worm and other tropical diseases. The chapter on leukemia is conventional with fairly good photomicrographs and the diagnosis and treatment of polycythemia vera are briefly but adequately covered. The idea that the bone marrow in chronic myelocytic leukemia in itself presents any specific pattern is open to question. The final chapter deals with the technic of bone marrow biopsies. The reviewer agrees with the author that whenever possible the person responsible for examination of the bone marrow be the one to obtain the specimen. It should be added that in arriving at the final diagnosis the bone marrow studies must always be carefully correlated with the patient's history, physical findings, general clinical picture and peripheral blood examination.

This atlas should prove useful to hematologists, pathologists and those experienced in the interpretation of bone marrow sections.

L.R.L.

MEDICAL STATE BOARD QUESTIONS AND ANSWERS: R. Max Goepp, M.D. and Harrison F. Flippin, M.D., Eighth Edition; 663 pages; 1950; W. B. Saunders Company, Philadelphia. Price $7.00.

This, the eighth revision of an ever popular book, is extensively revised to contain the advances in medicine in the eleven years since the previous edition was published. This is an excellent book for the young physi-

(*Continued on page 62*)



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*Orent-Keiles, E., and Hallman, L. F.: The Breakfast Meal in Relation to Blood-Sugar Values, Circular No. 827, United States Department of Agriculture, Bureau of Human Nutrition and Home Economics, Agricultural Research Administration, Dec., 1949.

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cians interested in licensure examinations and likewise the older men who may desire to take a licensure examination years after their graduation.

In addition to the many revisions from previous text, a new section deals with the field of psychiatry. The book, as formerly, is well arranged and one easy to read, and it will no doubt be of much value to many physicians desiring to improve their knowledge of basic facts in anatomy, physiological chemistry, materia medica, pathology, as well as in many other branches of medicine which are included in this interesting book.

The book will be of interest not only to students and recent graduates, but to many physicians anxious to test their knowledge in answering many of the questions therein contained. The reviewer predicts a continued general interest in this fine book, and it is one which will be used quite freely when the table of contents is noted.

A Text Book of Surgery: by American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Professor of Surgery, Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital. 1465 illustrations on 742 figures. 1550 pages. $13.50 Price. Fifth Edition. W. B. Saunders Company, Philadelphia and London.

A complete text book of surgery appears in this edition written authoritatively by many collaborators who are specialists and teachers in their respective fields. The usual pattern of etiology, pathology, diagnosis, and treatment is carried out. Controversial material has been excluded. Extensive revision has been made. There are many entirely new sections too numerous to mention in a brief review. The qualities of a good text book are often not so much in its classical presentations but in its practical applications, which are outstanding in this book. This is one of the few books that illustrate the common disturbances of the foot and ankle with illustrations of various types of shoe modifications. The development of ossification centers is excellently illustrated. The common and next common sites of benign skeletal tumors is well illustrated. The profuse illustrations — anatomical, schematic, drawings, and photographs — add an abundance of understandable information. A chapter is devoted to the various types and techniques of anesthesia. This text book is one of the best of its kind in comprehensive treatment and practical understanding of surgery.

J.W.F.

Cystoscopy and Urography by J. B. Macalpine, D.Sc., F.R.C.S. (Eng.), Williams & Wilkins Co., $13.50. 3rd Edition. 535 pages. 338 illustrations. 15 Colored plates.

Macalpine's 3rd Edition is of interest largely to those practitioners interested in Urological diagnosis. The reviewer was impressed by the extreme wordiness of the text. For clarity, brevity, and rather complete coverage of the subject, chapter 23 on "The Congenital

Abnormalities of the Kidney and Ureter", the reviewer considered to be the best written chapter.

One is impressed on reading this book with the great dependence on progress that the writer places by his references to the American Literature.

The colored plates are of extreme high quality, and the remainder of the illustrations satisfactory.

The book is well written, but wordy. The data is well presented, and the reviewer would recommend the volume as a reference book for any physician interested in urological diagnosis.

H.E.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

UROLOGICAL SURGERY by Austin Ingram Dodson, M.D., F.A.C.S., Richmond, Virginia, Professor of Urology, Medical College of Virginia; Urologist to the Hospital Division, Medical College of Virginia; Urologist to Crippled Children's Hospital; Urologist to St. Elizabeth's Hospital, Urologist to St. Luke's Hospital and McGuire Clinic; Second Edition. 645 illustrations; St. Louis, The C. V. Mosby Company, 1950. 855 pages. Price $13.50.

THE CYTOLOGIC DIAGNOSIS OF CANCER by the Staff of the Vincent Memorial Laboratory of the Vincent Memorial Hospital. A Gynecologic Service Affiliated with the Massachusetts General Hospital, Boston, Massachusetts. The Department of Gynecology Harvard Medical School. Published under the Sponsorship of The American Cancer Society. 229 pages with 153 figures. Philadelphia & London: W. B. Saunders Company, 1950. Price $6.50.

PHYSICIANS' AND NURSES' CONCISE MEDICAL ENCYCLOPAEDIA by William H. Kupper, M.D., author of "Malarial Therapy of Paresis," "State and National Board Summary", "Interesting and Useful Medical Statistics". Los Angeles, Biblion Press, 1950. 450 pages. Price $7.50.

HISTOLOGY by Arthur Worth Ham, M.B., Professor of Anatomy, in Charge of Histology, in the Faculties of Medicine and Dentistry, University of Toronto, Toronto, Canada. Philadelphia, Pennsylvania, J. B. Lippincott Company. 756 pages. 1950. Price $10.00.

PENICILLIN, ITS PRACTICAL APPLICATION, under the general editorship of Professor Sir Alexander Fleming, M.B., B.S., F.R.C.P., F.R.S., F.R.S., Second Edition. London, England, Butterworth & Co. (Publishers) Ltd., St. Louis, Mo., The C. V. Mosby Company. 1950. 491 pages. Price $7.00.

PROCEEDINGS OF THE FIRST CLINICAL ACTH CONFERENCE, edited by John R. Mote, M.D., Medical Director, Armour Laboratories, 178 contributors. 414 illustrations; 624 pages. March 27, 1950. Philadel-

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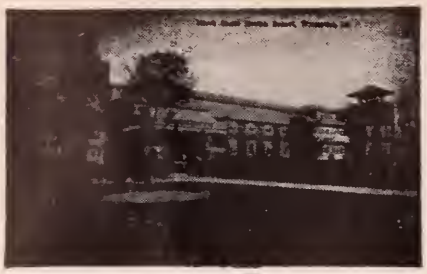
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BOOKS RECEIVED (Continued)

phia and Toronto, The Blakiston Company. Price $5.50.

SAW-GE-MAH ("Medicine Man") by Louis J. Gariepy, M.D., Saint Paul, Minnesota, Northland Press. 1950. 326 pages. Price $3.00.

CHEMICAL DEVELOPMENTS IN THYROIDOLOGY, by William T. Salter, M.D., Professor of Pharmacology, Yale University School of Medicine, New Haven, Connecticut. Springfield, Illinois, Charles C. Thomas. 1950. 87 pages. Price $2.00.

HANDBOOK OF OBSTETRICS AND DIAGNOSTIC GYNECOLOGY by Leo Doyle, M.S., M.D. First edition. Illustrations by Ralph Sweet. Palo Alto, California, University Medical Publishers. 240 pages. Price $2.00.

A MANUAL OF CARDIOLOGY (Second Edition) By Thomas J. Dry, M.A., M.B., Ch.B., M.S. in Medicine. Associate Professor of Medicine, University of Minnesota (Mayo Foundation); Consultant in Section on Cardiology, Mayo Clinic. New, Second Edition. 355 pages with 97 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price $5.00.

Progress IN CLINICAL ENDOCRINOLOGY, Edited by Samuel Soskin, M.D., New York, Grune & Stratton, Inc. Price $10.00.

CARDIOVASCULAR DISEASE, Fundamentals, Differential Diagnosis, Prognosis and Treatment, by Louis H. Sigler, M.D., F.A.C.P., New York, Grune & Stratton, 551 pages. Price $10.00.

MEDICAL MANAGEMENT OF GASTROINTESTINAL DISORDERS by Garnett Cheney, M.D., Clinical Professor of Medicine, Stanford University Medical School. 478 pages. Chicago, Year Book Publishers, Inc. Price $6.75.

A STORY OF NUTRITIONAL RESEARCH — The effect of some dietary factors on bones and the nervous system. By Sir Edward Mellanby, G.B.E., M.D., Sc.D., F.R.S., Secretary of the British Medical Research Council, Chairman, International Technical Commission on Nutrition. 454 pages. Baltimore: The Williams & Wilkins Company, 1950. Price $5.00.

VISUAL DEVELOPMENT — Volume I. By J. H. Prince, F.R.M.S., F.Z.S., F.B.O.A., F.S.M.C., Late Regional Association Lecturer in Comparative Ocular Anatomy and Ocular Evolution. With a foreword by Professor H. Hartridge, M.A., M.D., Sc.D., M.R.C.P., F.R.S., Professor of Physiology, University of London at St. Bartholomew's Medical College, Director, Vision Research Unit, Medical Research Council etc., 418 pages. Baltimore: The Williams & Wilkins Company, 1949. Price $9.50.

QUINIDINE IN DISORDERS OF THE HEART. By Harry Gold, M.D., Professor of Clinical Pharmacology at Cornell University Medical College, Attending-in-Charge of the Cardiovascular Research Unit at the Beth Israel Hospital, Attending Cardiologist at the

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Hospital for Joint Diseases, Managing Editor of the Cornell Conferences on Therapy. 115 pages. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, 1950. Price $2.00.

Lord Lister, His Life and Doctrine. By Douglas Guthrie. 128 pages. Baltimore: The Williams and Wilkins Company, 1949. Price $3.50.

Brucellosis (Undulant Fever) Clinical and Subclinical by Harold J. Harris, M.D., F.A.C.P., with the assistance of Blanche L. Stevenson, R.N. Foreword by Walter M. Simpson, M.S., M.D., F.A.C.P., with 111 illustrations, 12 in full color. 617 pages. Paul B. Hoeber, Inc., Medical Book Department of Harper & Brothers, New York, $10.00.

Tuberculosis — A Global Study in Social Pathology. By John B. McDougall, C.B.E., M.D., F.R.C.P. (Edin.), F.R.F.P.S. (Glas.), F.R.S.E. (Section of Tuberculosis, World Health Organization) Honorary Medical Advisor to the British Legion Village, Preston Hall, Kent, England. 455 pages. Baltimore, The Williams & Wilkins Company, 1949. Price $6.00.

Medicine For Nurses. By W. Gordon Sears, M.D. (Lond.) M.R.C.P. (Lond.) Senior Physician and Superintendent Mile End Hospital, London. Examiner to the General Nursing Council for England and Wales. 472 pages. Baltimore: The Williams & Wilkins Company, 1949. Price $3.00.

Textbook of Pediatrics — Mitchell-Nelson's. Edited by Waldo E. Nelson, M.D., Professor of Pediatrics, Temple University School of Medicine; Medical Director, Saint Christopher's Hospital for Children, Philadelphia. With the Collaboration of Sixty-Three Contributors. New, 5th Edition. 1658 pages with 426 illustrations, 19 in color. Philadelphia and London: W. B. Saunders Company, 1950. Price $12.50.

Medicine Could Be Verse — Humorous Poems Mainly About the Profession. By Charles G. Farnum, M.D., with an introduction by Strickland Gillilan. 127 pages. New York, Exposition Press, 1949. Price $3.00.

The family's reaction and attitudes toward the patient's tuberculosis can have a decided effect upon the role in enabling the patient to remain in the hospital progress of his treatment. The members of the family, as well as the patient, need education as to the meaning of the disease and must be particularly aware of their until treatment is completed. William B. Tollen, Ph.D., VA Pamphlet 10-27, Oct., 1948.

Health education and health services go hand in hand. Singly, they cannot do an effective job. Together, they complement each other and form an invaluable adjunct in the over-all health program. Health education without opportunities for medical consultation is sterile. Likewise, medical services exist in a vacuum unless they are called to the attention of the people. Tula Salpas, USPHS, Indust. Hyg. Newsletter, Aug., 1949.

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Dr. Eric Oldberg, Chicago surgeon, and William V. Kahler, Operating Vice-President of the Illinois Bell Telephone Company, have been elected to the Board of Directors of The John Crerar Library according to an announcement just made by Britton I. Budd, President of the Board. Their appointment filled vacancies left by the resignation of Dr. Ludvig Hektoen, President of the Chicago Tumor Institute, and Earl B. Kribben, Treasurer of Marshall Field & Company.

The appointments of Dr. Oldberg and Mr. Kahler are in the tradition of a long line of leading industrial and professional men who have been responsible for the development of The John Crerar Library into the largest public library devoted exclusively to science, technology, and medicine. The Library was founded in 1894. Mr. Kahler and Dr. Oldberg are the 50th and 51st men to join the distinguished line of directors which has included from the beginning such noted men as Marshall Field and Robert T. Lincoln.

William V. Kahler has served as Operating Vice President of the Illinois Bell Telephone Company since 1946, having first joined the engineering department of the company in 1924. He has also had experience with the Bell Telephone Laboratories and with the American Telephone and Telegraph Company, in New York. Mr. Kahler is a director of the Illinois Bell Telephone Company, a trustee of the Illinois Institute of Technology, a fellow of the American Institute of Electrical Engineers, and past president of Western Society ofcmfwyp vbg

Dr. Eric Oldberg is professor and head of Department of Neurology and Neurological Surgery in the University of Illinois College of Medicine, a position he has held since 1936. He first joined the staff of the University in 1931. He previously was instructor in physiology at Northwestern University. Dr. Oldberg is attending neurological surgeon at St. Luke's and the University of Illinois Research and Educational Hospital in Chicago, and has been associated with several other hospitals, including the Peter Bent Brigham Hospital in Boston. He is a fellow of the American College of Surgeons, and is a member of numerous medical societies. He has written many articles and reviews for medical periodicals, and is at present the associate editor of the **Journal of Neuropathology.**

The officers of the Crerar Library are Britton I. Budd, President of the Public Service Company of Northern Illinois; Edward L. Ryerson, Vice-President, Chairman, Inland Steel Company; and J. F. Dammann, Secretary, of Wilson & McIlvaine. Other members of the Board are Chauncey B. Borland, A. B. Dick, Jr., Solomon B. Smith, Henry T. Heald, George R. Jones, Dr. Andrew C. Ivy, S. DeWitt Clough and Rawleigh Warner.

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REFUTES IDEA THAT ALCOHOL STIMULATES NERVOUS SYSTEM

The idea that alcohol acts as a stimulant to the nervous system of man is no longer held in pharmacologic circles, says a medical consultant in answer to a query in the March 18th Journal of the American Medical Association.

"Small doses of alcohol appear to have a stimulating action by giving the drinker a feeling of well-being and increased self confidence, but unfortunately with a loss of judgment and the ability of self criticism," the consultant points out.

"The apparent stimulation is the result of the narcotic action of alcohol on the inhibitions. This depressant action involves first of all the higher centers of the brain, which are responsible for acquiescence to the habits of civilization.

"The dulling of the feeling of responsibility allows the more primitive cerebral functions to dominate. The fallacy of the stimulating effect of alcohol is greatly enhanced by the drinker who is convinced that he is performing better when he is under the influence. One doctor has aptly compared this apparent stimulation to a car on a hillside. Alcohol releases the brakes but does not cause the car to run better.

"The feeling of warmth after taking alcohol is deceptive, because this feeling is associated with rapid heat loss."

The consultant cited a German researcher who referred to the manifestations usually attributed to the "stimulating effect" of alcohol as the results of a beginning paralysis of certain parts of the brain.

"In the psychic sphere, the finer grades of attention, judgment, reflection and ability to comprehend are first lost," the consultant quoted the German researcher as saying. "This serves to explain the typical behavior of persons under the influence of alcoholic drinks.

"The soldier becomes more courageous since he observes the danger less, and reflects upon it less. The speaker is not tormented and influenced by the proximity of the public; he, therefore, speaks more freely and with more animation. One's self-appraisal rises greatly. Often one is astounded at the ease with which he expresses his thoughts and with the keenness of his judgment in matters which are beyond his mental sphere when sober, and is later ashamed of this delusion.

"The drunken individual attributes to himself great muscular strength and wastes this through unaccustomed and useless exhibitions of strength without thinking of the harm which may ensue, while the sober person willingly spares his strength."

Convincing arguments can be advanced to support the thesis that tuberculosis is the most important among the diseases which are both preventable and curable. Carl Muschenheim, M. D., Amer. Rev. Tuberc., July, 1949.

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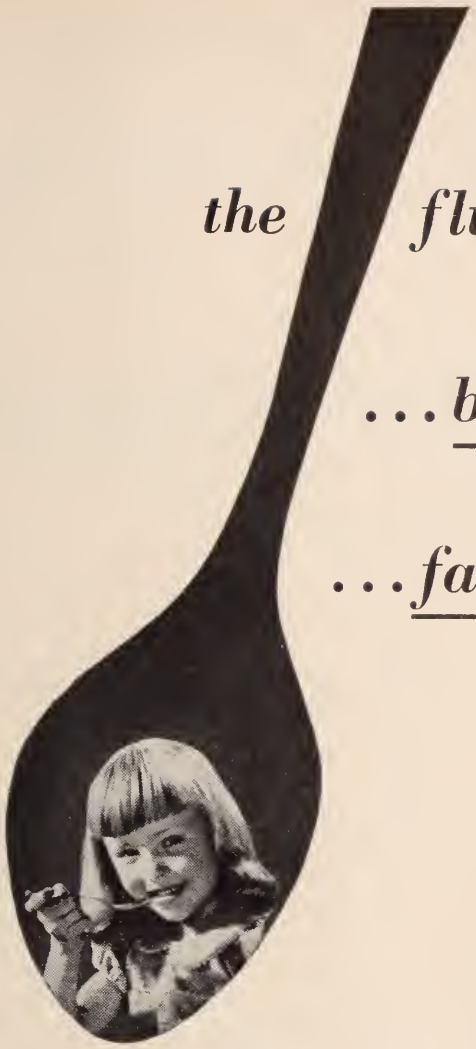
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The ILLINOIS Medical Journal

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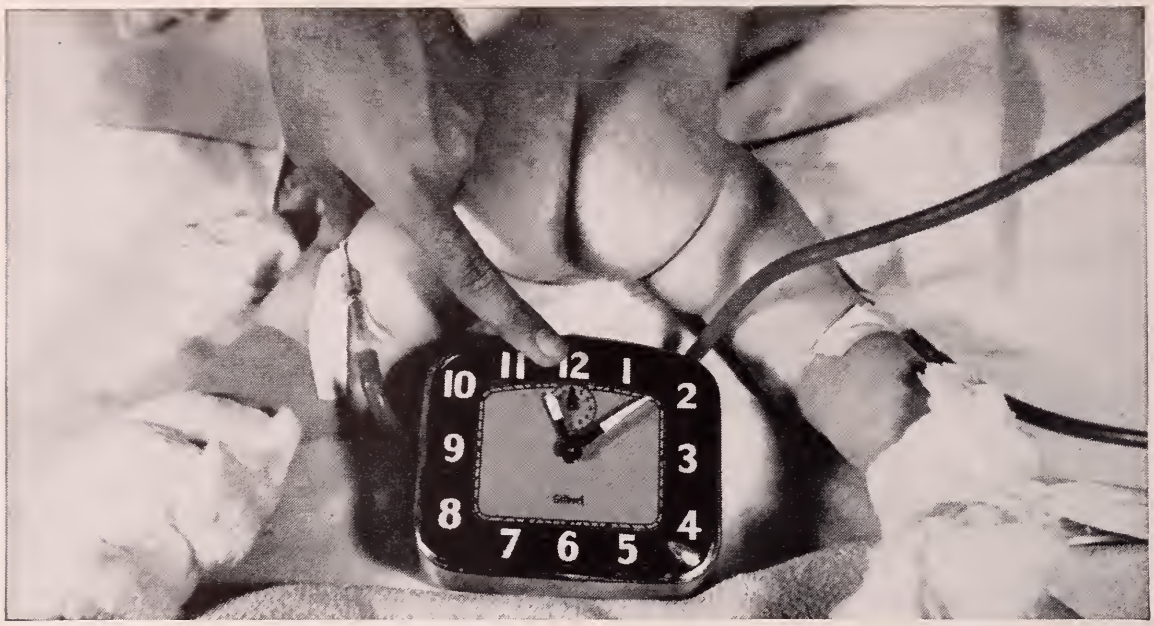
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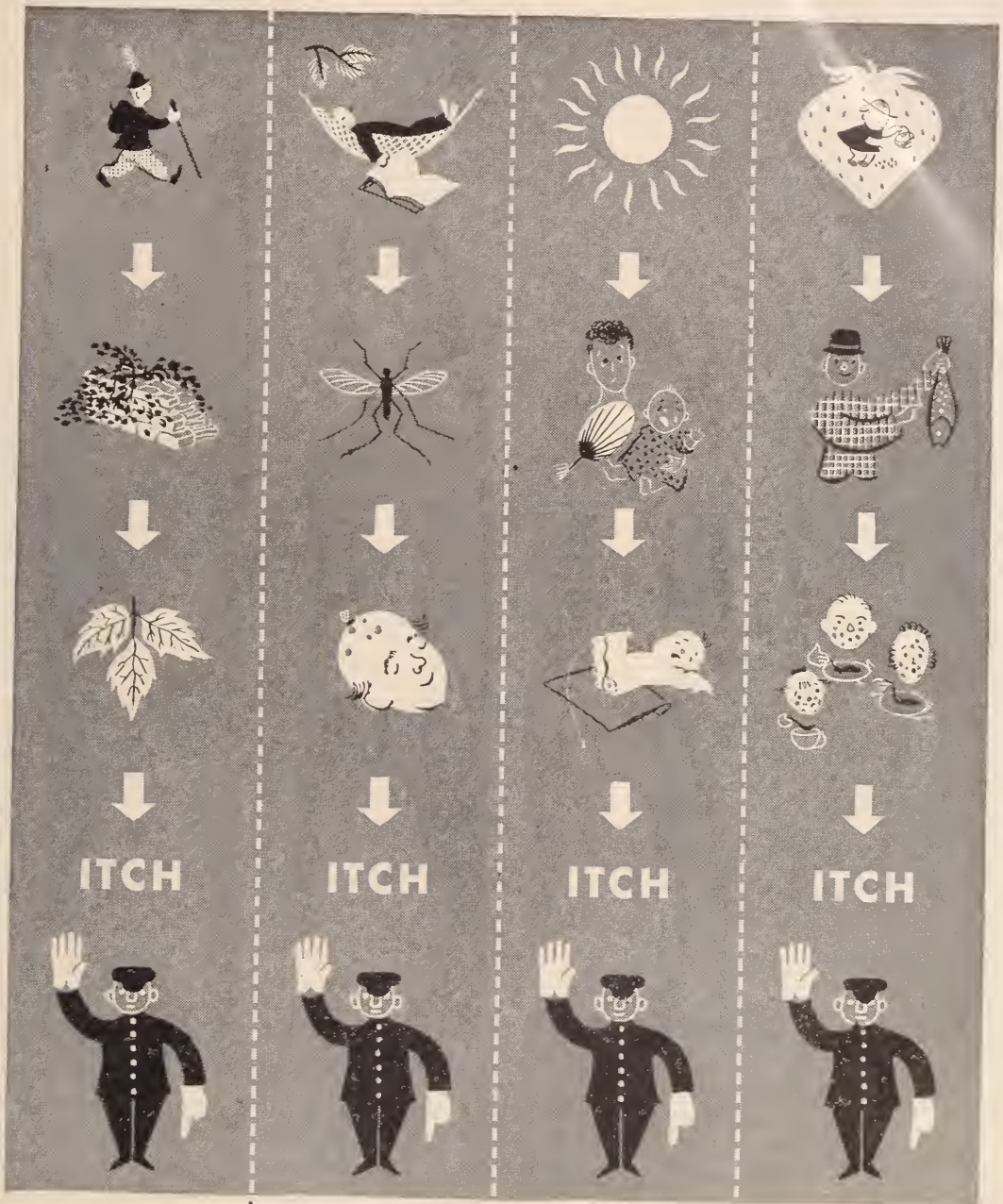
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1. Schwartzman, J.: Scientific exhibit at the American Academy of Pediatrics, San Francisco, Nov. 14-17, 1949.
2. Hechter, O.; Dopkeen, S. K., and Yudell, M. H.: The Clinical Use of Hyaluronidase in Hypodermoclysis, J. Pediat. 30:645 (June) 1947.

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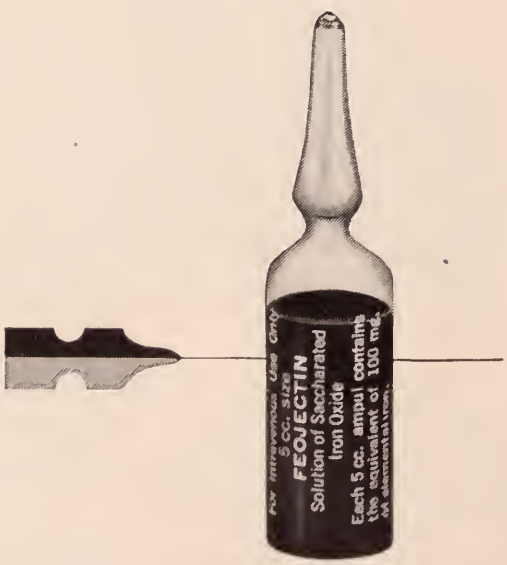
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Typical findings:

1. Dieckmann, W. J., and Priddle, H. D.: American J. Obstet. & Gynec. 57:541-546 (March) 1949.
2. Chesley, R. F., and Annitto, J. E.: Bull. Margaret Hague Maternity Hospital 1:68-75 (Sept.) 1948.
3. Healy, J. C.: Journal-Lancet 66:218-221 (July) 1946.
4. Kelly, H. T.: Pennsylvania M. J. 51:999 (June) 1948.

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HIGHLY EFFECTIVE DECONGESTANT ANTIHISTAMINIC

For symptomatic control of the common cold, allergic rhinitis including hay fever, vasomotor rhinitis and sinusitis.



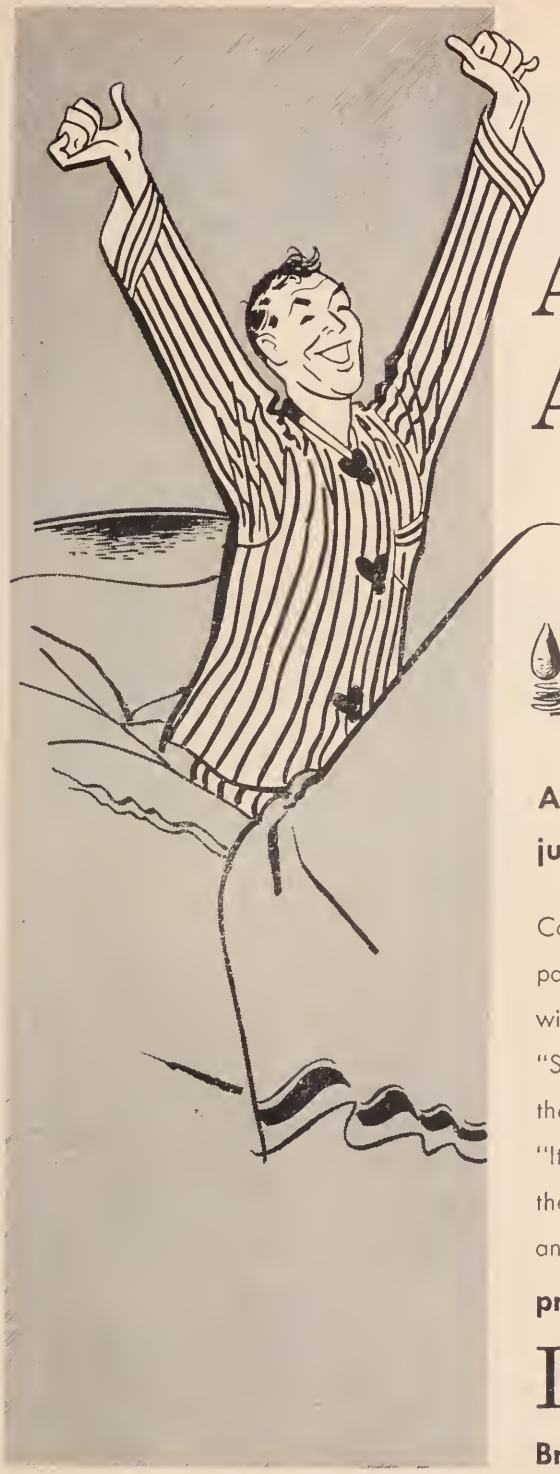
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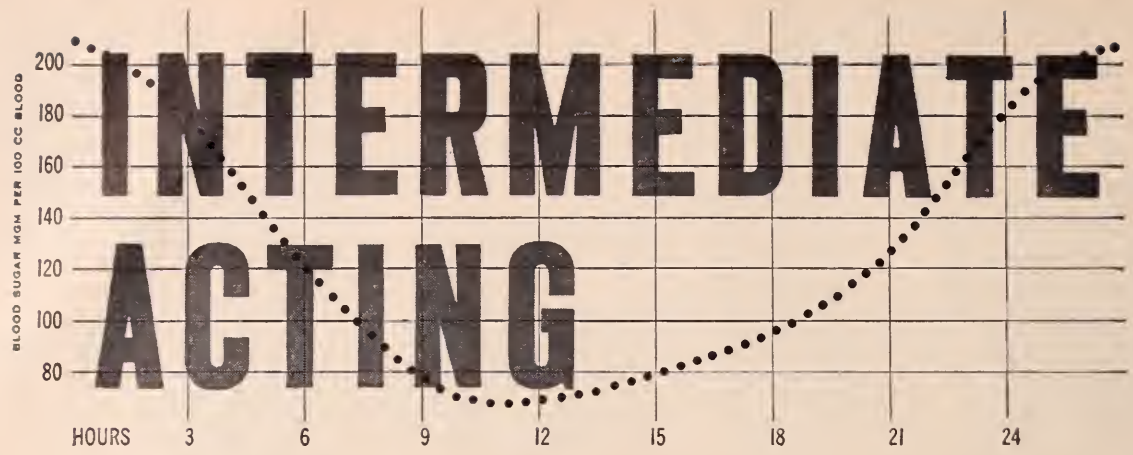
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1. Sheldon, J. M. et al: Univ. Mich. Hosp. Bull. 14:13-15 (1948). 2. MacQuiddy, E. L.: Neb. State M. J. 34:123 (1949).



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1. Rohr, J.H., and Colwell, A.R.: Arch. Int. Med. 82:54, 1948.
2. ibid Proc. Am. Diabetes Assn. 8:37, 1948.

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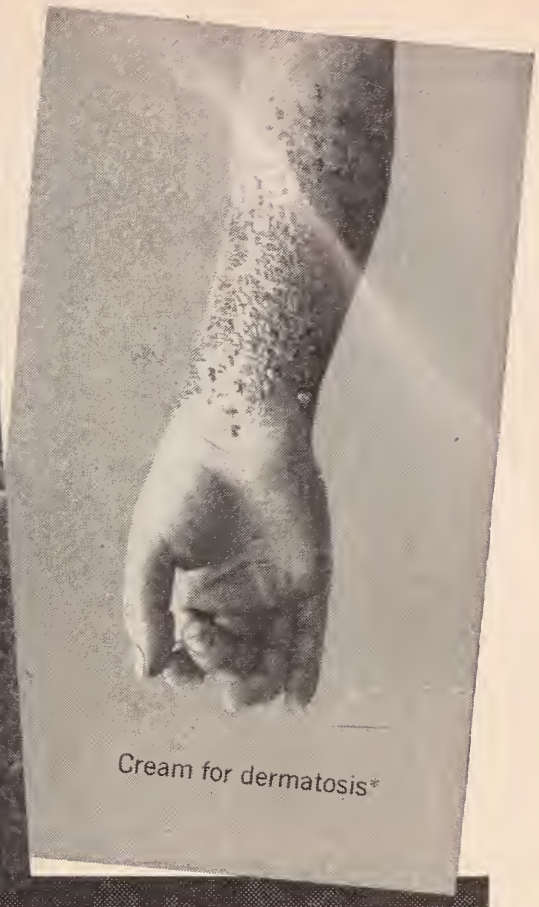
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[1]Schwartz, E.: Ann. Allergy 7:770 (Nov.-Dec.) 1949.

*From "Diseases of the Skin," by O. Ormsby and H. Montgomery, courtesy of Lea & Febiger, Phila., Pa., 1945.

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Gray, L.: J. Clin. Endocrinol. 3:92 (Feb.) 1943.

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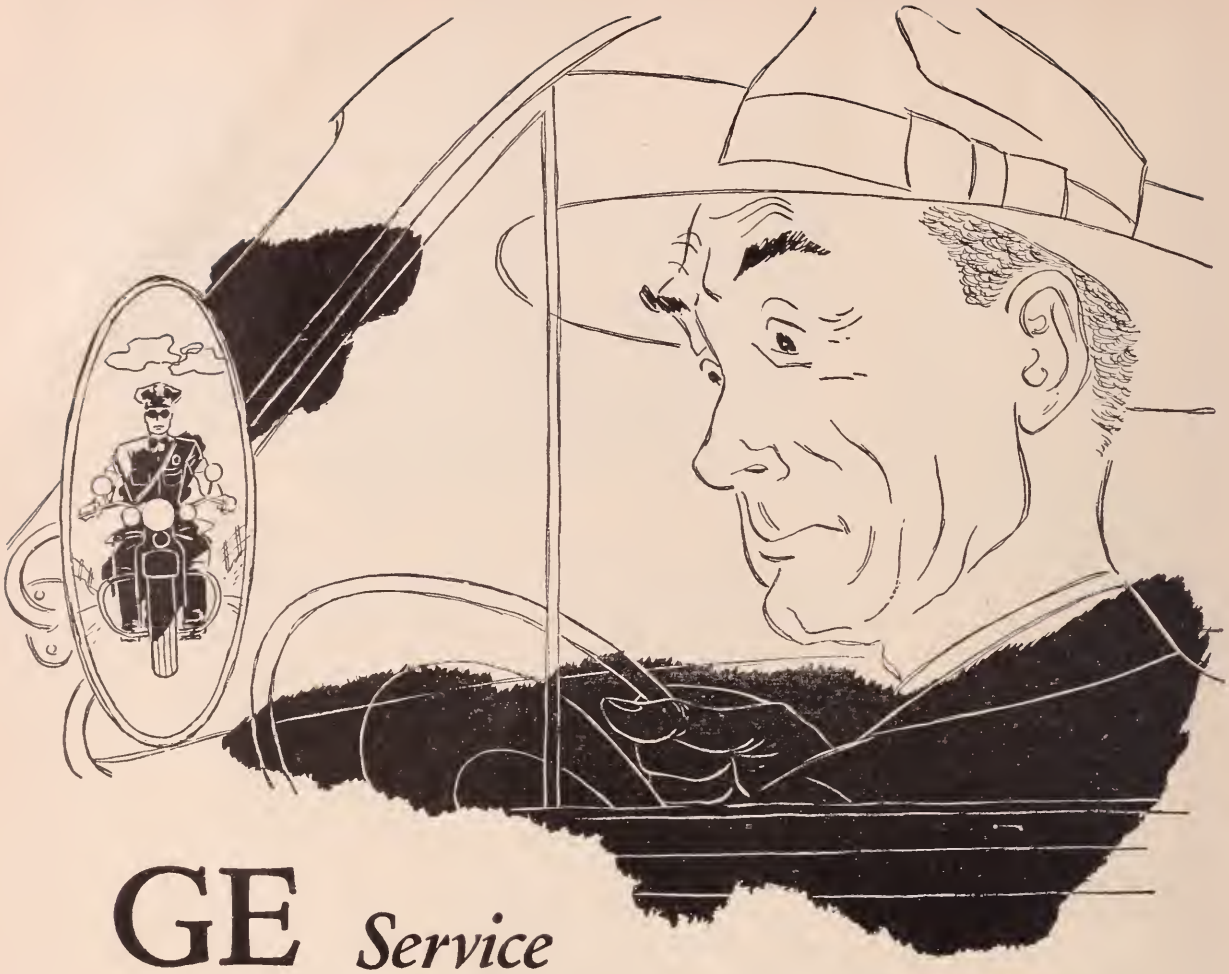
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in 250 mg. capsules,
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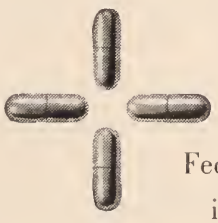
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Elixir: Infants: ½ teaspoonful 2 or 3 times daily, as necessary. Children: 1 teaspoonfu 2 or 3 times daily, as needed.
Adults: 1 or 2 teaspoonfuls, 3 or 4 times dai

references
1. Goodman, L. and Gilman, A The Pharmacologic Basis of Theropeutics, The Macmillon Co., New York, 1941. 2. Kilstein, R. I.: R Gastroenterol., 14:171, 1947. 3. Lee, L. W.: Nebrask Stote Med. J., 34:59, 1949. 4. Morrissey, J. H.: J. Urol., 57:635, 1947. 5. Ricci, J. V.: Contribution from Dept. of Gynecology, City Hospitol, New York 1946, New York Medicol College, New York, 1947 6. Stephens, G. K.: J. Oklohoma St. Med. Assoc., 42:246, 1949.



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For spoon-licking acceptance at vitamin time, there is nothing quite like Vi-Daylin—the honey-yellow liquid with the delicious citrus-like flavor and odor. Each 5-cc. teaspoonful, the average daily dose for children up to age 12, contains six essential vitamins, as shown in the formula. It's good direct from the spoon, or mixes readily with baby's formula, fruit juice or cereal. Lots of older folks take Vi-Daylin, too, rather than bother with hard-to-swallow capsules, tablets, or bitter-tasting preparations. It remains stable without refrigeration, has no fishy odor. Prescription pharmacies stock Vi-Daylin in three convenient sizes: 90-cc., 8-fluidounce and 1-pint bottles.

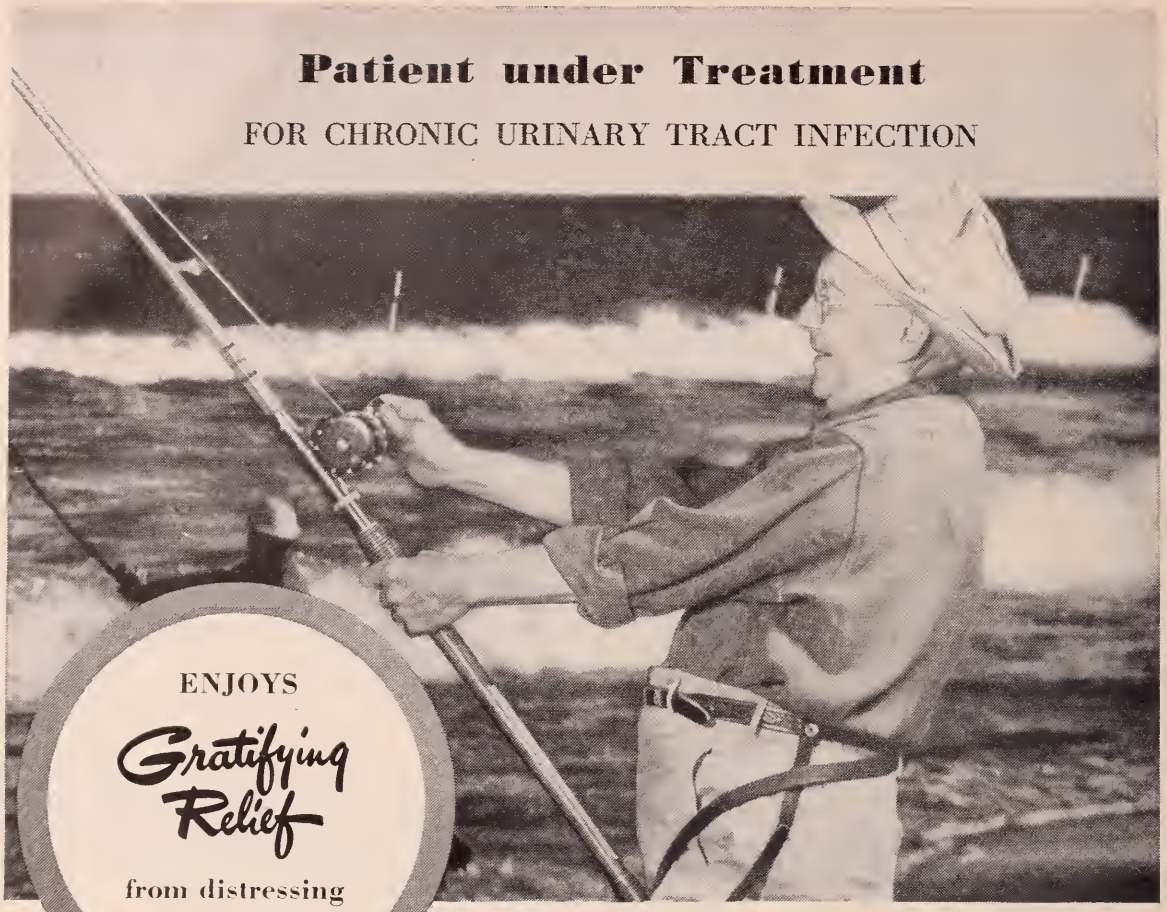
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Riboflavin	1.2 mg.
Ascorbic Acid	40 mg.
Nicotinamide	10 mg.

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FOR CHRONIC URINARY TRACT INFECTION



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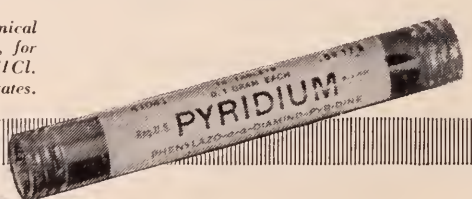
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Therapy:

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Today, for your convenience and ease of administration, BENADRYL Hydrochloride (diphenhydramine hydrochloride, Parke-Davis) is available in a wider variety of forms than ever before including Kapseals®, Capsules, Elixir and Steri-Vials®.

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AUREOMYCIN HYDROCHLORIDE LEDERLE

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Alkaline Effervescent Compound 'Warner'

Ionic balance in acidosis...



There are many disturbances which may "tip" the scales toward acidosis by causing a decline in the alkali reserve—fevers, diarrheas, profuse sweating, vomiting, dehydration, burns, trauma, colds, infections or wasting disorders.

ALKA-ZANE Alkaline Effervescent Compound 'Warner' is a systemic alkalizer which supplies those minerals necessary to maintain a normal ionic balance in the body—quickly, pleasantly and effectively. ALKA-ZANE is also an excellent adjuvant in sulfonamide and other antibiotic therapy where an alkaline medium has been found to provide greater safety and increased tolerance of these drugs.

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In solution each heaping teaspoonful of ALKA-ZANE* Alkaline Effervescent Compound provides approximately:

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New DODEX FORTE
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Each Dodex Forte tablet provides 5 micrograms of vitamin B_{12}, activated by 500 mg. of natural pyloric substance plus 1 mg. of folic acid.

Effective oral vitamin B_{12} therapy—first introduced as Dodex (With Oral Activator)—is now available for your prescriptions in a new, more potent tablet containing 5 micrograms of vitamin B_{12}, activated by 500 mg. of natural pyloric substance plus 1 mg. of folic acid. These high-potency tablets are supplied as Dodex Forte (With Oral Activator) in bottles of 100 and 1000 tablets. Their availability provides greater potency, convenience, and economy for oral vitamin B_{12} therapy plus the hematopoietic action of folic acid. Dodex Forte is indicated in the treatment of most conditions responsive to vitamin B_{12} therapy; however, until clinical data are more complete, it is not recommended as the sole treatment for true Addisonian pernicious anemia.

DODEX INJECTABLE
Vials (30 micrograms B_{12} per cc.)

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Dodex Injectable—vitamin B_{12} for intramuscular injection—is now available in 5-cc. multiple-dose vials containing 30 micrograms of crystalline vitamin B_{12} per cc. These new high-potency vials facilitate adjustment of dosage to the requirements and response of your individual patient with far greater ease and convenience. Moreover, Dodex Injectable vials permit significant savings by avoiding the waste inherent in the use of individual ampuls when large doses are needed. The high concentration of vitamin B_{12} available in these vials also spares your patient the discomfort and inconvenience of frequent injections.



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T. M.—DODEX

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1. Lapin, J. H.; Goldman, S. F., and Goldman, A.: New York State J. Med. *43*:1964, 1943.

*T.M.

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Easter Island Figurine; Photo courtesy University of Pennsylvania Museum



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The ILLINOIS Medical Journal

Official Journal of the Illinois State Medical Society

Harold M. Camp, EDITOR. Theodore R. Van Dellen, ASSOCIATE EDITOR.

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OUR NEW PRESIDENT

Harry Malcome Hedge of Evanston was inducted into the office of President at the closing session of the House of Delegates at the annual meeting in Springfield, May 25. For several years Doctor Hedge was a member of the Council, and served as its chairman when he was elected President-Elect at the 1949 annual meeting.

Doctor Hedge was born at Toledo, Iowa, July 22, 1884, and he was graduated from Northwestern University Medical School in 1917. His undergraduate work was at Northwestern University, where he received the degree of B. S. in 1915. Following his internship at St. Luke's Hospital in Chicago, he served in the Medical Corps of the U. S. Army, serving until the end of the war. From 1917 to 1919, he was Captain, Commanding Motor Ambulance Bn No. 1. He was advanced to the rank of Colonel, MC. AUS, Commanding General Hospital 119.

In 1916-17, he was clinical assistant in pathology at Northwestern University Medical School, and in 1920 in the Department of Dermatology, becoming Assistant Professor of Dermatology in 1931 and Associate Professor in 1950. Doctor Hedge was certified by the American Board of Dermatology and Syphilology in 1933. He has been head of the Department of Dermatology at Wesley Memorial Hospital, Evanston Hospital, and Chicago Memorial Hospital, and Consulting Dermatologist for the United Air Lines.

From 1943 to 1946 Doctor Hedge was Vice-Chairman, Warmanpower Commission, Procurement and Assignment Service for Physicians, remaining in this position until the Service was ended. Doctor Hedge, in addition to membership in the Chicago Medical Society, Illinois State Medical Society, and the American Medical Association, is also a member of many special societies. Among these, Fellow of the American College of Physicians, Institute of Medicine of Chicago, Chicago Dermatological Society, American Academy of Dermatology, and American Association of Military Surgeons.

He is a member of the Board of Health of Evanston, and serves his community well in this capacity. He is also a member of the American Legion, Sons of the American Revolution, and Military Order of World Wars. Doctor Hedge has written many scientific articles which have been published in special journals, as well as in the J. A. M. A. and the Illinois Medical Journal. Likewise, he is the author of DERMATOLOGY: An Elementary Reference For Physicians, which is now being sent to all physicians in this state by the State Department of Public Health.

Doctor Hedge was married to Florence Norman in 1919, and they have three children, Maryirene, Barbara Rose and Harry Paul Hedge.

During the past year, Doctor Hedge has appeared on the program before quite a number of component societies, as well as on several post graduate programs as conducted by the State Society Committee on Post Graduate Service. He has made many appearances before lay audiences, and it is quite obvious that during his year as President of the Illinois State Medical Society, he will visit all parts of the state, meeting many old friends and making new ones.

With the present day socio-economic trends, and the continued efforts to change the basic method of providing medical care, the President of this Society has many duties and obligations which were unheard of only a short time ago. The many friends of Dr. Harry Malcome Hedge are thoroughly convinced that he will do his part in the next year, and carry on in the manner established by his predecessors of recent years.

POLIOMYELITIS

Hart E. Van Riper, M.D.
Medical Director,
National Foundation for Infantile Paralysis

There is concern in some quarters that 1950 may become another record-breaking year for polio epidemics. Unfortunately, there is some justification for those fears in the early reported incidence of the disease — 1388 cases for the first 15 weeks of 1950 — a greater number than for the similar period in 1949 which culminated in the record number of 42,375 cases. However, in a disease whose epidemiology contains many unknown factors, it is impossible to forecast with accuracy the extent of future outbreaks.

Despite the pessimistic outlook, prospects for adequate patient care are better than ever before. This is due mainly to the excellent cooperation of physicians, nurses, physical therapists and hospitals, as well as the voluntary and official agencies in the local communities. The reluctance of general hospitals in the past to admit polio patients is rapidly disappearing and in its place there has come a growing realization of their responsibility to provide the essential requisites for adequate care. Physicians are more alert to the disease and their diagnostic acumen is keener. Professional education programs sponsored by the National Foundation for Infantile Paralysis have resulted in larger numbers of specially trained nurses, physical therapists and other professional personnel mandatory to the highest quality of patient care.

In a disease where specific laboratory aids to diagnosis are still lacking, the responsibility for early diagnosis and the institution of proper treatment falls heavily on the physician. In a broad sense, poliomyelitis is of three classifications — abortive, non-paralytic, and paralytic. Into these general classifications the various types of poliomyelitis can be included, such as spinal, bulbar, and encephalitic. The *abortive* form may be defined as a symptomatically non-specific, mild illness without the clinical signs of central nervous system involvement. The *non-paralytic* type is one in which the clinical signs of central nervous system involvement may appear, but where nerve cell damage is not severe enough to produce paralysis. The *paralytic* type is, of course, the one in which definite paralysis develops.

Most patients with abortive poliomyelitis are never reported as such. From the physician's point of view, although these cases cannot be reported as definitely poliomyelitis, all cases with such mild illness during an epidemic should be regarded with suspicion for it is possible that these patients may go on to develop frank signs of the disease.

In both the non-paralytic and paralytic types there is a wide range of symptoms which usually makes diagnosis difficult. The so-called *diphasic* form is characterized by a preliminary period of minor illness similar to that seen in the abortive type. The first phase may be followed by a few days of comparative normalcy before the second phase occurs with its more pronounced evidence of central nervous system involvement. Very often these first and second phases are not clear-cut, but overlap and obscure each other. Physicians report that in children under 15 years of age, a clear cut diphasic course is more common than in young adolescents and adults.

Although there are no specific laboratory tests for poliomyelitis as such, spinal fluid examinations are of value. Generally the leukocyte count in the spinal fluid is elevated and the protein content rises. As corroborative evidence in a case where clinical symptoms of frank paralysis are not evident, the spinal fluid examination is essential to verify a diagnosis.

Early hospitalization of paralytic patients in whom a definite diagnosis can be made is highly



Harry M. Hedge, M.D.

President, Illinois State Medical Society

1950-1951

important. General hospitals need not set up special isolation facilities. These hospitals can care for polio patients if routine isolation techniques such as are employed for other contagious diseases are available.

The transmission of poliomyelitis is still largely conjectural and under intense investigation. But there is no scientific evidence to indicate that it may be airborne or water borne. Although in rare instances milk has been suspected as a possible carrier, there is no direct evidence of its culpability. The same is true of the fly. Although the virus has been found on flies, direct scientific evidence linking the fly to actual spread of the disease is still lacking. The bulk of scientific opinion today is that the disease is transmitted from person-to-person through intimate contact of a type that occurs in households. Several surveys completed in the recent past have corroborated this belief.

Whether or not there will be more than the usual number of poliomyelitis cases this summer, the National Foundation for Infantile Paralysis stands ready to meet the needs of any community requesting its aid — whether it be consultation with the health authorities, use of its epidemic aid teams to advise on treatment programs, making available special equipment such as respirators and hot pack machines, or help in securing professional personnel.

More than 2800 local chapters of the National Foundation for Infantile Paralysis serve every community in the United States. These chapters will cooperate with physicians and hospitals so that no polio patient need go without the best available care. The address of a local chapter can be obtained from the telephone directory or local health department. Physicians are urged to acquaint themselves with the services of the chapters and to advise their patients to seek their aid when necessary.

Tuberculosis is preventable and eradicable. In the United States it causes one death every nine minutes. Illinois needs 3000 additional sanitarium beds.

A TALE WITH A MORAL

An excerpt from the proceedings of the Illinois State Medical Society, as preserved in a longhand journal covering the period May 17, 1900, to May 1, 1903.

Richard Yates, son of the Civil War governor of Illinois, was elected governor in November, 1900, and inaugurated January 8, 1901.

At the annual meeting of The Illinois State Medical Society in May, 1900, the House of Delegates had adopted a resolution authorizing the Judicial Council to present to the governor a list of physicians eligible for appointment to the State Board of Health and other offices requiring the services of a physician. The purpose was to raise the quality of medical men chosen for such work. This Council had elected Dr. E. P. Cook of Mendota as chairman and Dr. J. F. Percy of Galesburg as secretary.

December 12, 1900, the Judicial Council met at Springfield. After a long discussion of the injunction laid upon it by the House of Delegates, it was decided to offer the services of the Council to the governor in the capacity of advisors concerning the qualifications of men seeking appointment to medical posts in the state government, rather than to find and offer to the governor a list of names. That same afternoon the Council went to the office of Governor-elect Yates in Springfield, where Dr. C. E. Black of Jacksonville had made an appointment with him.

The yellowing minutes of the fifty-year old proceedings took up the story:

"The members of the Council were introduced to Judge Yates by Dr. Black of Jacksonville. The Governor-Elect received the Council very cordially and said that he was very glad to see physicians taking some practical interest in the affairs of the State of Illinois. The Judge further intimated that if we took a little more interest in the primaries before the elections it would be still better for all concerned.

"Dr. Will was then introduced as our spokesman and was listened to very attentively by Judge Yates."

Dr. O. B. Will of Peoria, designated as spokesman, made the Council's offer.

However, the governor's reply was rather noncommittal. It is recorded as follows:

"I may say, however, without any tendency to undue assumption, that I was born and have always lived in Jacksonville, Morgan County, the

seat of several state institutions and the virtual birth-place of all of them, and have been familiar with their conduct and management all through life, so that I feel that I know the needs of all of them as well as any man in the state.

"I wish to say further, that the Governorship of this State will not be made a mere incident in my political career, but the four years of my prospective administration I shall hope to make, if possible, the most efficient in the conduct of the institutional affairs of the State.

"I shall be in no hurry about making the necessary appointments, with which I feel that you and the body you represent will be abundantly satisfied. Indeed, I may call upon you for the advice tendered.

"I thank you for your visit and bid you good day."

The governor later submitted a list of several dozen names to the Judicial Council, which studied them carefully and rated them through a special committee as to their qualifications for office. The record does not indicate how many of the Society's recommendations were actually accepted by the governor.

However, it has taken fifty years for the individual members of the medical profession of Illinois to accept the advice of the astute politician who met with them that winter day in Springfield and warned them that "it would be better for all concerned" if the medical profession took a little more interest in politics. So perhaps, if the governor disregarded the instructions, he was only matching the complete disregard of his main interest in life manifested by the medical men.

And who could blame him?

The last page of the 172-page journal, after chronicling and approving the council's total expenses for 1902-1903 of $223.82, re-echoes the "alerte" sounded on the first page in these words:

"This is the first Judicial Council that has kept an accurate and full record of its proceedings. It is also the first Council that has interested itself in a practical way in the many questions that have come before it from the State Society, and that have never let up until something was really accomplished.

"Hereafter, and under the new constitution adopted at this meeting, the name of this committee will be the "Council."

"J. F. Percy, Secretary Judicial Council, Galesburg, Illinois, May, 1903."

The moral? Do you need to be told?

FIND CHLOROMYCETIN EFFECTIVE AGAINST TULAREMIA

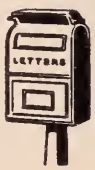
Successful treatment of six cases of tularemia, also known as rabbit fever, with chloromycetin, one of the newer antibiotic drugs, is reported by a group of doctors from the University of Maryland School of Medicine, Baltimore.

The disease is acquired from wild rabbits and other wild animals and insects. It occurs as a local skin lesion and as a generalized infection with fever.

The doctors—Robert T. Parker, Robert E. Bauer, Howard E. Hall and Theodore E. Woodward—and Leonard M. Lister, a medical student, describe their findings in the May 6 Journal of the American Medical Association.

Both streptomycin and aureomycin previously have been shown to be valuable in treating tularemia.

CORRESPONDENCE



SHORT COURSE IN POLIO

A short course in polio for physicians will be held at Northwestern University on July 5, 6 and 7, sponsored jointly by the National Foundation for Infantile Paralysis and Northwestern University. Physicians who are interested in taking this course may apply to: Miss Gertrude Beard, Department of Physical Medicine, Northwestern University Medical School, 303 E. Chicago Avenue, Chicago 11, Illinois.

As in the past, local National Foundation Chapters in the Illinois Counties may underwrite the costs for a limited number of physicians desiring to take this course. In as much as the 1949 polio epidemic in Illinois has placed a tremendous financial burden on the majority of County Chapters, the funds available are necessarily small. Therefore, the number of physicians sent by any one Chapter, if any, will be based largely upon available funds, coupled with the polio needs of the area.

ADMISSION POLICIES AT RESEARCH AND EDUCATIONAL HOSPITAL

In response to inquiries from members of the Illinois State Medical Society regarding the University of Illinois' policy governing admission of patients to its Research and Education Hospitals in Chicago, the following information is summarized for their information.

The Research and Educational Hospitals are operated and maintained by the University of Illinois for the advancement of medical education and research. They are the teaching hospitals of the Colleges of Medicine, Dentistry, and Pharmacy. Admission policies are therefore based primarily on the teaching or investigative interest of each case. This is determined individually by the respective departments on the basis of medical information submitted *by the referring physician* and our examination of the patient. Citizenship, residence in the State of Illinois, and eligibility for charitable services are pre-requisites for admission.

The hospitals offer two types of service—Inpatient and Outpatient (Clinic). The University reserves the right to assign patients to either, depending on individual need and available facilities. The teaching program limits the number of cases of any one particular type which may be accepted during a given period. The period of hospitalization is necessarily limited and patients are discharged at the discretion of the department to which they are assigned.

Application for admission of a patient should be addressed to the Director of Admissions and accompanied by a letter from the attending physician stating the name, age, sex of applicant, history of present complaints, clinical and laboratory findings, impression or diagnosis. The referring physician should also state whether the

patient's condition will permit use of the Outpatient Service, which normally requires several visits to complete diagnostic procedures and therapy.

Medical services are provided free of charge. Certain charges have been authorized by the Board of Trustees. However, it should be emphasized that no restriction is placed on the admission of patients without charge when such admission is otherwise indicated. All charges are computed at cost and assessed in accordance with the patient's ability to pay. Benefits available under any hospitalization insurance plan carried by the patient are assignable to the hospital. Charges apply to patients eligible for or receiving financial assistance from public or private welfare agencies whose policies provide payment of hospital costs. They apply alike to Clinic and Hospital patients and cover registration, laboratory service, drugs, x-rays, special appliances, hospital care per diem, and other costs. The schedule of charges is available upon request.

Physicians are advised *not* to bring or send patients for hospitalization or clinic care unless *prior appointment* has been arranged through the Office of the Director of Admissions. The Hospital Social Service is available to assist patients with special problems.

Both the inpatient and outpatient services have been taxed beyond capacity in recent years. During 1949, a total of 7,300 patients received bed care. Visits to the University's 24 outpatient clinics numbered 190,346 during the past year, which is the largest total handled by any institution or hospital in Illinois.

Despite the large number of patients accommodated, the University has been forced to reject the applications of more than 100 clinic and bed patients daily because of inadequate facilities. There are only 39 beds available for general surgery and 63 beds for general medicine. Service facilities are used to full capacity, and all departments maintain hospital waiting lists.

This situation is expected to be eased somewhat, however, with the construction of a 111-bed addition to the Research and Educational Hospitals. The building is expected to be completed in the fall of 1951.

REFRESHER COURSE IN OBSTETRICS

A one week refresher course in obstetrics and gynecology sponsored by the Illinois State Medical Society, the State Department of Public Health, and the University of Illinois will be given at the Research and Educational Hospital beginning July 17, 1950. It will consist of formal lectures, clinical conferences, round table discussions, manikin demonstrations, ward walks, and out-patient clinics. The staff of the Research and Educational Hospital plus invited lecturers from Northwestern University, Loyola University and the University of Chicago will give the course.

The program will occupy the time from 9:00 to 5:00 daily. The course will not be given for less than 10 men. Registration closes Saturday, July 8th. Registration fee $10. Accommodations for room and board can be arranged at the nearby Professional Schools Y.M.C.A.

Apply for registration in course to Dr. F. H. Falls, 1853 West Polk Street, Chicago 12, Illinois.

"YOUR MENTAL HOSPITALS" MENTAL HEALTH WEEK IN ILLINOIS

Under proclamation of the Governor, Mental Health Week was observed in Illinois during the period of April 23 to 29, 1950, through the cooperative efforts of the Illinois Department of Public Welfare, Illinois Society for Mental Hygiene, Illinois State Medical Society, Illinois Department of Public Health, United States Public Health Service and others.

It was hoped that Mental Health Week would create an awareness and an understanding, as well as an appreciation, of the magnitude of the problem of care and treatment of the mentally ill. Special programs were held and radio presentations were made. Placards on street cars in several cities, a large electric sign on Michigan Avenue in Chicago, and numerous articles in the daily newspapers throughout the State helped to draw the attention of the public to this Week.

Open House was held on Sunday, April 23, 1950, in thirteen Illinois State Mental Hospitals. Thousands of visitors throughout the length and breadth of the State, from Elgin to Anna and from Kankakee to East Moline, saw the fine exhibits that filled the auditoriums of these hospitals, participated in the programs, and were con-

ducted on tours through various wards. They received a clear and concise knowledge of the activities carried on within these fine institutions.

Each State Mental Hospital chose their three outstanding employees of the year and presented them with special awards. Out of the 8400 employees in the thirteen hospitals, thirty-eight employees were chosen by the institutions. From this group of thirty-eight, three were selected to receive the Governor's award. The Governor's award of $250.00 was given to the outstanding employee of the mental hospitals for the entire State of Illinois at a luncheon held in Springfield on April 25, 1950. The second award of $100.00 and a third award of $50.00 were also made.

Mrs. Harriett T. Larson, who is a hospital attendant at the Lincoln State School and Colony, was selected as the outstanding employee of the year in the mental institutions in the State of Illinois. She was assigned to a ward in which resided the most difficult patients in the institution. They ranged from young adults to senile women, all of them problem cases. They were destructive, untidy, combative and frequently violent. Mrs. Larson volunteered to work on this ward in an attempt to rehabilitate what had been considered a hopeless task. In a period of one year, the results were amazing. She chose the most alert patients to look after the more helpless ones. She studied the patients individually and used recreational therapy according to their talents and abilities. At the present time, all the patients wear clothes and almost no sedation is required. They all say grace at meals, sit on chairs and benches instead of lying about on the floor, and show an interest in the world about them. Mrs. Larson went into a job that seemed helpless and stuck to it in spite of many handicaps. She has, without a doubt, performed a task which seemed almost impossible.

The winner of the second award was Mrs. Ethel Mills of the Chicago State Hospital, and the third Governor's award went to Mr. Anton Svanda of the Illinois Security Hospital.

In addition to the above awards, a certificate of honorable mention went to Mrs. Margaret Schrader of the Peoria State Hospital as one of the five outstanding Psychiatric Aides of the Nation chosen by the National Mental Health Foundation out of 22,000 psychiatric aides.

Mental Health is everyone's problem and it is hoped that the observation of this special week did increase the knowledge and stimulate the interest of many.

G. A. WILTRAKIS, M.D.
Deputy Director

INDUSTRIAL DOCTORS INVITE YOU TO MEETING

The Western Association of Industrial Physicians and Surgeons invites all American Medical Association members to attend its meeting on Sunday, June 25th, 1950 (the day prior to the opening of the A.M.A. convention), from 9:00 A.M. to 5:00 P.M., in the Curran Theater, 455 Geary Street, San Francisco. The program includes: Tetanus Prophylaxis in Previously Immunized Persons, Rodney R. Beard, M.D.; Medical Administrative Problems in Workmen's Compensation Cases, a panel; A Rest Regime for Acute Back Sprain, Christopher Legg, M.D. and Harry W. Walker, M.D.; Psychosis, a Side Door out of Industry, Frank Tallman, M.D.; and Job Placement in the Rehabilitation of Alcoholics, a panel.

ARMY CIVILIAN INTERN PROGRAM

A number of positions are still available in the Army Medical Department's civilian intern program, according to an announcement from the Army Medical Department.

Applications are continuing to come in and selections are being made weekly. Interested individuals should submit their applications as soon as possible to insure that their cases will receive consideration.

The recent adoption of uniform service standards for medical interns in the Armed Forces makes no change in the Army program. Service standards are:

(1) Army internship served in a military hospital; one year of further active duty in addition to each year of internship.
(2) Army internship served in a civilian hospital; two years of further active duty in addition to one year of internship.

To be eligible for this year's program, a candidate must be a potential graduate who will begin an internship during 1950, and must have been accepted for internship training in a civilian hospital acceptable to the Surgeon General.

Individuals who previously submitted appli-

cations for internship in an Army hospital and who were not tendered appointments may apply for the civilian program simply by completing two short forms. A new physical examination will not be required at this time.

New applicants must file the complete set of forms, which may be obtained at any medical ROTC office or directly from the Surgeon General of the Army.

Army interns in civilian hospitals must satisfactorily complete eight months of internship to become eligible to participate in the professional examinations leading to appointment in the Regular Army.

CLINICS FOR CRIPPLED CHILDREN FOR JULY

Doctor Herbert R. Kobes, director of the University of Illinois Division of Services for Crippled Children, has released the July schedule of clinics for physically handicapped children. The Division will conduct 17 general clinics providing diagnostic orthopedic, pediatric, speech and hearing examinations along with medical social and nursing services. There will be 4 special clinics for children with rheumatic fever and 1 for cerebral palsied children.

Clinics are held by the Division in cooperation with local medical and health organizations, both public and private. Clinicians are selected among private physicians who are certified Board members. Any private physician may refer or bring to a convenient clinic any child or children for whom he may want examination or may want to receive consultative services.

The July clinics are:

July 5—Joliet, Will Co. TB Sanitarium
July 6—Cairo, Public Health Building
July 11—Peoria, St. Francis Hospital
July 11—E. St. Louis, St. Mary's Hospital
July 12—Hinsdale, Hinsdale Sanitarium
July 13—Springfield, St. John's Hospital
July 13—Elmhurst (Rheumatic Fever), Memorial Hospital of DuPage County
July 13—Salem, American Legion Hall
July 14—Chicago Heights (Rheumatic Fever), St. James Hospital
July 18—Danville, Lake View Hospital
July 18—Carrollton, Baptist Church
July 19—Springfield (Cerebral Palsy), Memorial Hospital
July 19—Elgin, Sherman Hospital
July 19—Sterling, Sterling Public Hospital
July 20—Rockford, St. Anthony's Hospital
July 20—Mt. Vernon, Masonic Temple
July 25—Peoria, St. Francis Hospital
July 25—Effingham (Rheumatic Fever), St. Anthony's Emergency Hospital
July 26—Chicago Heights, St. James Hospital
July 26—Alton, Alton Memorial Hospital
July 27—Bloomington, St. Joseph's Hospital
July 28—Chicago Heights (Rheumatic Fever), St. James

CONSERVATION, NUTRITION AND HEALTH

Friends of the Land will hold its ninth annual Institute on Conservation, Nutrition and Health at the Stevens Hotel, Chicago, July 6-7. Theme of the program will be "Soil, the Cradle of Life."

The program will conclude with a symposium on soil-health relationships, with Grant H. Laing, Northwestern University Medical School, presiding; other participants will be R. V. Allison, University of Florida, Soil Nutrients and the Health of the Plant; George K. Davis, University of Florida, Soil Nutrients and the Health of Domestic and Wild Animals; Henry Trautman, Madison, Wis., Soil Nutrients and the Health of Man. The session will end with Dr. Jonathan Forman presenting a summary of the proceedings of the institute. Registration fee for the institute will be $5.00. The dinner tickets will be $4.50. Advance registration may be made with Friends of the Land, 1368 North High Street, Columbus 1, Ohio. Physicians and others interested are invited to attend.

ORIGINAL ARTICLES



The Practice of Medicine -- A Priceless Heritage

Walter Stevenson, M.D., F.A.C.S., F.I.C.S.
Quincy

The profession of medicine constitutes a priceless heritage. It means much more than the acquisition of certain knowledge and certain skills. It encompasses a great ideal of service to humanity and of selfless devotion to that ideal. It is an ideal which we inherited from our teachers and which it is our duty to pass on to our successors, unsullied and unimpaired. It is an entailed heritage; it must not be alienated out of the legitimate line.

But, speaking here to you for the last time as your president, I would also like to point out to you that there is a vast difference between on the one hand the concept of medicine as a profession and of the God-given privilege of being a physician and on the other the right to practice medicine. The right to practice medicine is conferred on us by the state. It implies that the recipient meets certain standards of training and is intended for the protection of the public against inadequately trained practitioners. No one questions that it is proper for the state to assume such a power.

However, that power also implies the power to remove or limit the right conferred on us, in case we are considered not to live up to our correlative responsibilities. And at the same time, the accepted principle of state regulation, by extension, may easily be taken to include the social and economic as well as the professional phases of the practice of medicine. The pressure for just such extension of the principle of state control in the economic sphere, on the basis of just such trumped-up charges constitutes the present threat to our professional heritage and obversely the most important phase of the pressure is, not its menace to medical men or their patients as such, but its menace to that professional ideal and thus to human welfare.

It is that threat to our great, priceless professional heritage which is posed by government interference in the economic phase of health care, that I desire to discuss with you today.

Extension of government regulation from the socio-economic to the professional sphere must

Presidential Address Delivered at the Annual Meeting of the Illinois State Medical Society, Springfield, Ill., May 23, 1950.

be and is being fought by organized medicine with every resource at its command. And, I think, there are few individual medical men who do not agree with that general position of the medical profession. Nearly all of us, in other words, realize that, if the blighting hand of government clamps down on the practice of medicine, our professional ideal — the priceless heritage of our calling — will be irreparably shattered, with resultant irreparable harm to our nation, our patients, our profession and ourselves.

But how many of us have put that realization into words and deeds? There has never been a period in modern medicine when we were under such bitter attack, but how many of us are content to contribute a little money to the fight and let the other fellow do the fighting?

Look into your own hearts for the answers to those questions. I think you will find — and this is what I feel clamors for expression here today — that many good men of medicine, though conscious of their devotion to their professional ideals as far as the immediate care of patients goes, have been failing in that broader duty of supporting with equal aggressiveness the fight to protect those ideals.

Let us consider for a moment certain phases of the attitudes of the ordinary layman toward medicine. First, he does not know much about it. Despite all our educational effort, he is often still ignorant of the whys and wherefores of disease, even of the simplest details of the anatomy and physiology of his own body. Many of the new developments in medicine, publicized as an educational step, become merely channels by which conscienceless men sell him panaceas and nostrums because he does not understand himself. That is well illustrated by the antihistamine drugs for which he is paying millions of dollars despite even specific warnings from medical men. Thus he is a ready victim for any mullah who promises him freedom from disease, especially "free".

Second, medical care costs money. I do not mean that it is always expensive, but it takes funds that might be spent positively for the acquisition of the pleasant things of modern living instead of negatively for the elimination of illness. That is an unpleasant situation to confront and it is human nature to evade such issues as long as possible. Thus there is always the appeal to human selfishness, particularly in these days when so many of our citizens have fallen away from that basic injunction of Genesis — that "in the sweat of thy face shalt thou eat bread." We are still not back in the Garden of Eden and that injunction still stands, but many of our people have forgotten it and think they can get something for nothing.

Third, I believe that there are what I might call inherited or "congenital" public attitudes which are responsible for much antagonism, just as they explain in part the acceptance by many laymen of so-called "drugless healing" and the position of such otherwise fine groups as the Christian Scientists in rejecting orthodox medicine.

Once upon a time the calomel-and-quinine school of medicine, for instance, stirred public resistance to medicine as it was then, and that rejection has become fixed in the minds of a part of the general public. That type of medicine, the best we could do before the rise of modern medicine, has long since been eliminated, but the attitude of antagonism and rejection it created in the lay mind is still with us. We are thus opposed, not by a conscious, reasoned opposition to medical techniques, but by that vague, inherited attitude toward medicine, to which our enemies and the enemies of our country's welfare may appeal.

And fourth, the physician in the abstract is associated with tragedy or disaster, with pain, illness and death. I am sure you have all seen illustrations of that attitude in the emotional rejection of medicine, for instance, by children who have watched a parent die lingeringly of incurable disease and have taken out their frustration in criticism of the medical profession.

It is within these groups—the ignorant, the greedy, the unthinking and the emotionally warped individuals, that the propaganda for government enslavement of medicine finds its most fertile soil. All the Socialist propagandists need do—and you have all heard it done—is to develop a series of pejorative references to medicine which tie in with the distorted prejudices of these antagonistic groups and they build up their list of supporters.

But there is still a fifth phase of the public attitude toward medicine which is important to

us—the attitude of the *individual* layman toward the *individual* physician. In contrast to the horrendous Dr. Hyde which is medicine in the abstract, there is always Dr. Jekyll, the benign side of the character. Out of direct personal contact with today's well-trained, competent, devoted, sympathetic physician, ready and willing to serve, most people have a kindly feeling toward that physician as one concrete specific person, entirely different and apart from the vague monstrosity known as "organized medicine." He is the personification of help in time of need, of security against disease and injury, the benignant deus ex machina. They love him and, what is more, they trust him.

A clearcut demonstration is easy. Ask the ordinary layman what he thinks of socialized medicine and, unless he has been informed properly, he is likely to reply that it might be all right or that he favors it. That is the attitude toward "medicine" in the abstract. But ask the same individual what he thinks of his own personal physician and whether he wants that physician subjected to political control in his relationship with himself as a patient, and you will uncover startled and dynamic opposition and set off loud cries that something be done. That is the attitude toward the "physician" in person.

This distinction is important. Aside from explaining much of the criticism of medicine, especially "organized medicine" and the inconsistencies of public opinion, it is just about the only position we had left to us, from which to organize our defense against Socialization. By emphasizing the individual "physician," we can overwhelm the antagonism engendered against the abstract idea of "medicine." That is why it is necessary to cement and strengthen that individual relationship by such devices as grievance committees, night call systems and more careful and considerate treatment of patients.

And that is why the Illinois State Medical Society, in laying out its program for combatting socialization, has placed its trust in a campaign by which individual physicians talk personally to patients—either in groups at luncheons, dinners and meetings, or, one at a time in professional and personal contacts.

That the decision is sound has been borne out by the fact that most requests for speakers on socialized medicine specify physicians, contrary to early expectations. When it comes to discussions of how medical care is to be administered, the layman wants a physician's opinion. Because of the achievements of the volunteers who serve in our speakers' bureau, public sentiment in Illinois, with the exception of a few areas, is overwhelmingly opposed already to socialization. For myself I would not fear to face a general referendum among the voters of Illinois tomorrow. And the fact that the administration in Washington has been extremely chary of the whole subject, despite its imaginary "mandate" for the welfare state in November, 1948, suggests strongly that a similar state of public opinion prevails throughout the nation.

That attitude of the individual patient toward the individual doctor goes back to the physician's adherence to his professional ideals. It reflects the patient's appreciation of the physician's resultant devotion to duty as far as the care of his patient goes.

One of the most vivid realizations that has come to me during my term as president has been the great influence over public thinking, exercisable by the individual physician because of this patient attitude and the usual physician's failure to appreciate and use that influence.

And that brings me back to my original question! How many of us, no matter how sure of our loyalty at the patient level, are sufficiently devoted to our professional ideals as to give full energy to defending them in the national arena?

I am not discussing here the need for combatting Socialism to the death, which is also our duty as good Americans. I am talking only of our duty to defend and pass on to those who come after us the priceless heritage of the profession of medicine. Not everyone of us can sway great audiences with flights of oratory, but every one of us can make and seize every possible opportunity to bring home the message of freedom to our individual patients, their families and friends, to our friends and acquaintances in club, lodge, church or other social contact, to lend his financial support and vote to the programs as an individual and as a member of a medical society, to the programs outlined by our leaders.

The physician who fails in this duty — and I say this as a solemn warning as emphatically

as I can phrase it — is as derelict in his duty to his heritage as the man who would fail to give a patient his best efforts. And only by participating to the full extent of his power in this individualistic fight to protect economic and social freedom in medicine can he claim to be doing his full share in the deeper, more significant fight, to preserve and transmit undiminished the priceless heritage committed to him in his generation.

These thoughts on the ideals of medical service and the need for preserving them have been in part stirred by, and are particularly appropriate to, the theme of this 1950 annual meeting of the Illinois State Medical Society, for we have named this our "Andy Hall Meeting." It is the first of our 110 meetings which we have designated to honor a single living individual.

We have taken this unprecedented step in honor of our esteemed colleague, Dr. Andy Hall of Mt. Vernon, a medical practitioner in Illinois for 60 years who last December was chosen from among 35 candidates from various states the nation's outstanding general practitioner. No more deserving physician could have been so signally honored and Illinois is proud and gratified to number him among its great men henceforth and forever. Dr. Hall expresses in his professional career the devotion to medical ideals and to medical freedom which I have so feebly tried here to establish as a rule and guide for all of us. I know no better exemplification of the ideal physician than Dr. Andy Hall. And at this point in my address as president I congratulate him formally in the name of the Illinois State Medical Society on his whole life and professional career and on his great achievement in winning this award. I thank him most earnestly for the great honor he has reflected on all of us and our state and even more for the inspiration his peerless career has been to all of us. And I express from my heart the hope that he will long be with us as further light and inspiration, as teacher and as the vivid embodiment of all that is holy and right in the profession of medicine.

As far down as you can dig in the sands of Mesopotamia you go though stratum after stratum of buried civilizations, each coming out of a long period of darkness, developing a culture all its own, dying, and allowing the world to return to another period of darkness from which another civilization with a new and different culture would arise. From each bright period of cultural development, the spark of medical service has been tenderly guarded by priestly hands to make a feeble glow through the age of darkness following, being fanned again and again into a bright flame with each cultural renaissance.

This carefully nourished light of self-effacing service, the tradition of professional devotion, is of more value to humanity than all the trappings of science that the last generation or so has added to it. It was not the writings of Galen, but the Roman doctors, who fought the Great Plague in Rome, when the book-writing Galen the Pergamian had fled. This tradition of sacrifice held the doctor firmly in the line of duty during the multiple epidemics of the Middle Ages — through the Plague and the Pest, through the Red Death and the Black Death, through the Sweating Sickness and the Dancing Sickness. Each dreaded disease decimated his ranks, but each return of the creeping death found the doctor ready to combat it.

There were the traditions of medicine at the beginning of the development of this Golden Age, traditions of hard work and self-sacrificing service, of courage in the face of danger — and to this our present age of culture has added a knowledge and understanding of medicine greater than the world has ever known before.

When I took office as your President, I said to you then that I was proud of my profession, that I was proud to be a member of the medical fraternity, that I had always been so proud of it and always expected to be. I have in the last year found new reason for such pride. And, as I give you this my parting salute, I humbly thank you for the honor you have conferred on me and the privilege you have given me of serving you.

Let us as a modern profession be unafraid of the future. No matter what may happen from a legislative standpoint, we will still be doctors of medicine ready to serve our fellow man. That was the oath that we took when we graduated and we will all stand true to that promise. Doctors will always be needed to alleviate pain and comfort those who suffer. So let us fight on, not for the selfish reason of preserving our own

status quo, but that we may continue on and on with the scientific research and progress that enable us to render better and better medical care for those in need. Let us, in other words, maintain, renew, intensify our devotion to our ideals and to our priceless heritage.

Let it be our daily prayer that, when we take that journey from which no traveler returns, it will be with the full knowledge and confidence that we have fought the good fight for what we know to be right and that the heaven every physician earns, can be only an eternal continuation of the service to his fellows which it is our ceaseless endeavor to give on earth.

Posterior Lipping Fractures of the Tibia Involving the Ankle Mortice.

Etiology, Pathology and Treatment

Carlo Scuderi, M.D., F.A.C.S., and Edward L. Schrey, M.D.
Chicago

Posterior lipping fractures of the tibia with a posterior dislocation of the astragalus are relatively common fractures in large civilian and industrial centers. In practically all cases both the external and internal malleoli of the ankle are broken and displaced. Usually the internal malleolus has a marked displacement, while the external malleolus has very little displacement.

Unless these cases are seen early and accurate reapposition of the fragments obtained, a rapidly progressive osteo-arthritis results in the ankle mortice with a painful ankle, and inability to bear weight. Once this has occurred an ankle fusion is necessary and is the only solution for obtaining a painless joint for weight bearing. From both a civilian and industrial standpoint an ankle fusion carries a very substantial specific loss of use of the leg.

Etiology.—Cotton of Boston was probably one of the first men to describe this particular fracture in detail, and for this reason many men recognize this fracture as a "Cotton fracture". In view of the fact that both the internal and external malleoli are usually fractured in association with the posterior lip of the tibia, this fracture is commonly known at the present time as the "tri-malleolar fracture".

This type of fracture is produced by a violence thrown on the long axis of the leg with the foot in the equinus position. This usually occurs when the heel catches as when a person goes down stairs or steps off of a bus or streetcar. The entire weight of the body plus the impetus of the fall is sufficient to produce the tri-malleolar fracture. The present vogue of high heels in women's shoes accounts for the higher incident of this type of fracture in this sex.

The posterior marginal fracture may be produced in one of the two following ways:-

1. With the foot in the equinus position, abduction produces a fracture of the external malleolus. The ligaments on the medial aspect of the ankle become taught and avulse the internal malleolus. With both malleoli broken and the force continuing, the astragalus is brought to bear against the posterior lip of the tibia and a piece of variable size is broken off. The astragalus now moves into a posterior dislocation and comes to rest between the posterior aspect of the tibia and the posterior lipping

From the Fracture Service — Cook County Hospital Department of Surgery — University of Illinois.

Presented before the General Assembly, 109th Annual Meeting, Illinois State Medical Society, May 16, 1949.

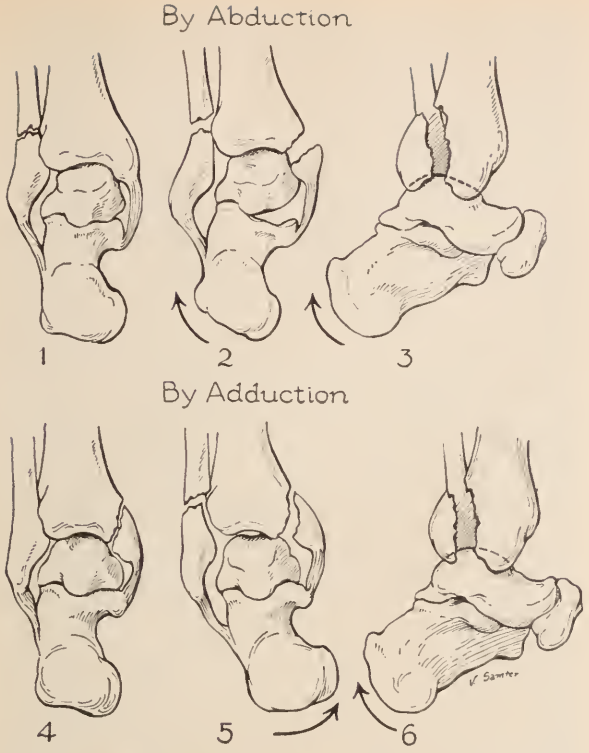


Figure 1. Illustrations 1, 2, and 3 show the production of the posterior lipping fracture by abduction. (1) Abduction produces a fracture of the external malleolus. (2) The internal malleolus becomes avulsed by ligamentous pull. (3) All the force now is thrown against the posterior lip of the tibia by the astragalus. As the lip breaks off the astragalus goes into a posterior dislocation.

Illustrations 4, 5, and 6 show the production of the posterior lipping fracture by adduction. (4) The internal malleolus becomes fractured by the adduction pressure of the astragalus. (5) The continuation of the force into adduction breaks off the external malleolus. (6) The final stage in the pathology, the posterior lip of the tibia is displaced posteriorly and the astragalus goes into a posterior dislocation.

fracture, with a complete disruption of the ankle mortice. (Figure 1 — 1, 2, 3)

2. With the foot in the equinus position, adduction produces a fracture of the internal malleolus by direct pressure of the astragalus. The continuation of the force produces a fracture of the external malleolus. Again as in the adduction mechanism the astragalus is brought to bear against the posterior lip of the tibia and a piece of variable size is broken off. (Figure 1 — 4, 5, 6)

Pathology.—In view of the fact that a considerable amount of violence is necessary to produce a fracture-dislocation of the ankle, the associated soft tissue injury especially to the ligaments must be considerable. When both the external and internal malleoli are fractured and displaced with the dislocated astragalus, the ligaments on the medial and lateral aspects of the ankle remain intact, and only the ligaments and capsule to the front of the tibial astragaloid joint are torn. The ligaments and capsule on the posterior aspect of the ankle remain intact as the fractured posterior lip of the tibia with the intact posterior capsule and astragalus all slide posteriorly in one mass.

Occasionally one sees an isolated fracture of the posterior lip of the tibia without fractures of the external or internal malleoli, but this is indeed a rarity. When this does occur a very severe injury to the ligaments and capsule of the ankle results and then the soft tissue injuries constitute the major pathology. In order for the astragalus to be displaced posteriorly with the posterior lip of the tibia, the ligaments on the medial and lateral aspect of the ankle must be torn loose from their bony attachments, or they must be ruptured by the causative force. In addition the capsule and ligamentous structures on the front of the ankle mortice must be torn or ruptured.

The fracture of the external malleolus usually is of an oblique or spiral type and has never, as far as we can recall, failed to unite by a solid bony union. The internal malleolus, on the other hand, has given rise to a non-union in approximately 35% of cases. This is directly the result of three factors. First, the fragment frequently is associated with considerable displacement so that there is a failure of bone contact. Second, in some instances a flap of periosteum drops between the fragments and union is prevented because of soft tissue interposition. Third, the main source of blood supply to the internal malleolus is from its base, and the fracture disrupts the flow of nutrition to this area.

The posterior lipping fracture of the tibia may be of variable size. Occasionally it is only a small sliver of bone, but in the majority of cases between 20% and 40% of the weight bearing surface is broken off. Only the latter cases require open reduction with internal fixation. Never have we observed a comminuted posterior lipping fracture. The posterior lip breaks off in one solid fragment. Occasionally small pieces of the cortex are broken off and prevent the accurate reapposition of the posterior lip of the

tibia to the main fragment. In such instances, the small fragment of cortex must be removed. On no occasion have we ever observed soft tissue interposition in this area.

The hematoma organizes rapidly and the resulting fibrous tissue solidifies in a relatively short period of time so that unless the case is operated early, accurate reapposition of the fragment becomes very difficult.

Contractures of the soft tissue especially the tendon of Achilles and the gastrocnemius muscle occurs rapidly and after seven to ten days this single factor is difficult to overcome.

Treatment. — The treatment of this specific fracture is divided into two very distinct and separate groups depending first on the bone pathology, and secondly on the time element.

The early cases are those seen, diagnosed and adequate treatment rendered under the first five to seven days. In these cases with an anatomical reduction of the weight bearing portion of the tibia, a very good end result can be anticipated with a moveable and painless ankle on weight bearing.

Occasionally the posterior lipping fracture of the lower end of the tibia is very small and does not involve the actual weight bearing portion of the tibia. In these cases, the reduction of the dislocated astragalus and restoration of the normal relationship between the external and internal malleoli with the astragalus plus immobilization in plaster, is all that is necessary. The small posterior lipping fracture fragment is left wherever it comes to rest. Some posterior and upward displacement of this fragment has no clinical significance.

When the posterior lipping fragment constitutes 20% to 40% of the tibial weight bearing portion, however, an early operative intervention with anatomical reduction and internal fixation is imperative if a useful ankle joint is to be hoped for. Unless a smooth articulation of the lower end of the tibia is obtained, a traumatic arthritis develops with associated pain, swelling and eventual complete loss of voluntary weight bearing. These cases all require an ankle fusion to eliminate the element of pain.

Up until 1942, one of the authors (Carlo Scuderi) attempted every known method of closed reduction with a uniformly high incidence of disastrous results. Since that time all cases which fall into the above catagory have been treated by open reduction and internal fixation. Twenty-eight cases have been operated by the authors during the last seven years with uniformly good results.

The late cases are those that are first seen weeks after the original injury with a persistence of the dislocation of the astragalus and the displacement of a large posterior lip fragment. Traumatic arthritis rapidly develops with the associated manifestations which eventually make weight bearing impossible. Immediate ankle fusion is recommended in all these cases as a satisfactory weight bearing ankle can only result by eliminating the disrupted ankle mortice.

If surgery is indicated, the leg is kept elevated on a Thomas splint to a height of ten to fourteen inches, and an elastic bandage is applied from the toes to the knee. This is done to reduce the edema of the leg while preparations are being made for surgery. It is best to reduce the dislocation of the foot under anesthesia and apply a posterior molded cast for immobilization if this has not already been done by the time the case is seen by the surgeon who is to do the open reduction.

The day prior to surgery the leg is prepared by shaving, trimming the toe nails short, and washing the leg from the toes to the knee with soap and water for ten minutes. This is followed by alcohol and ether sponging and a sterile towel is used to cover the operative area.

The next day when the patient is asleep on the operating table, a Martin constrictor is applied to the leg to give an avascular field. This is most important as good visibility during the operation is probably one of the cardinal factors to an accurate reduction of the fragments. In order to avoid the binding down of the gastrocnemius muscle and tendon of Achilles, the constrictor is always circularized at the lower third of the thigh. The leg is then again washed for ten minutes with soap and water followed by alcohol, ether and a mercureal antiseptic. Methiolate or mercresen have been our preference.

The position of the patient on the table is also important. The patient is placed in the prone position with the feet just beyond the edge of the table, so that by gravity alone the foot tends to return to its normal position.

The draping must be done so that the foot and lower half of the leg are visible.

A five to six inch incision is then made in the

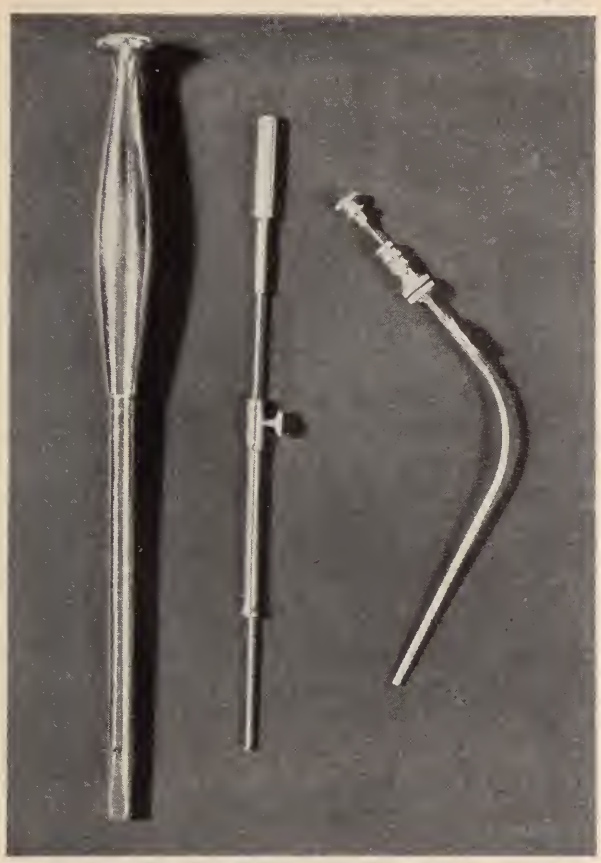


Figure 2. Three almost indispensable instruments in the surgical repair of this fracture. Left to right — Schrey pressure bar; Jackson depth gauge; Frazier aspirator.

longitudinal axis just medial to the tendon of Achilles, and extending down to the upper margin of the os calcis.

The posterior tibial vessels and nerve are now isolated and retracted medially while the tendon of Achilles is retracted laterally. The tendon and muscle of the flexor hallucis longus is now visible and is retracted laterally exposing the posterior aspect of the tibia, the displaced posterior lipping fragment, and the posteriorly displaced astragalus.

With a periosteal elevator the fracture margins of the fragments are carefully cleaned off so that the dentations are clearly visible and can be anatomically fitted into the proper place. Only when all the dentations fit accurately can a reduction be considered anatomical. Needless to say visibility here is priceless. A neurosurgical aspirator is used throughout the procedure to keep the field absolutely dry. We prefer the Frazier aspirator for this type of case. (see illustration — Figure 2.)

The posterior fragment is friable and the most proximal end is very thin. For this reason gentleness and firmness are required so as not to split the bone. The Schrey pressure bar is essential to avoid damage to this fragment. The serrated broad base of the instrument prevents skidding off the fragment and also eliminates the danger of breaking the posterior lipping fragment. (see illustration — Figure 2.) With the fragment anatomically reduced and held in place by the pressure bar, the first hole is drilled through both fragments and the depth of the hole is measured with a Jackson depth gauge. (see illustration — Figure 2.) A shank hole of slightly larger size is now drilled through the proximal fragment so that no threads engage the bone, and the proper screw length is selected. The ideal screw is one which just perforates the cortex on the anterior aspect of the tibia.

The screw is carefully inserted and screwed firmly into place. A second drill hole and screw is now inserted lower down on the fragment so as to assure fixation and avoid rotation of the fragment.

Closure of the soft tissue is done with 000 chromic catgut and interrupted black silk is used for the skin closure.

A pressure bandage of the Ace or Tensor type is used to hold on the dressings and also to pre-

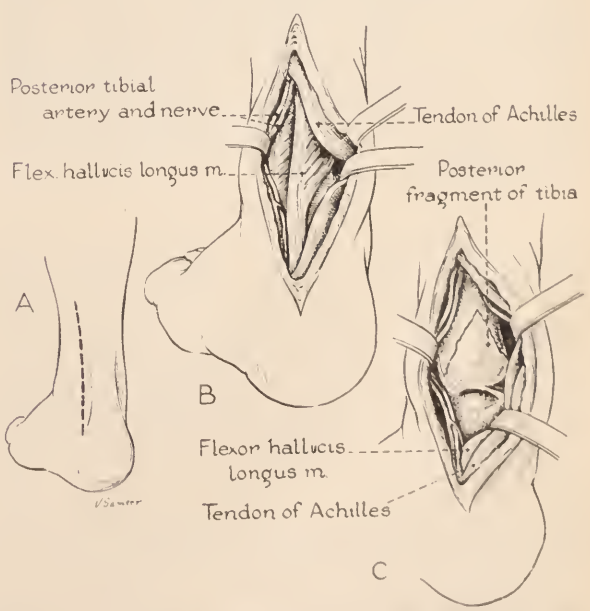


Figure 3. A. Longitudinal incision just medial to the tendon of Achilles. B. By retracting the tendon of Achilles laterally and the posterior tibia vessels and nerve medially, the tendon and part of the muscle belly of the flexor hallucis longus muscle comes into view. C. By retracting the flexor hallucis longus laterally, the posterior aspect of the tibia and the lipping fracture of the tibia can be readily identified.

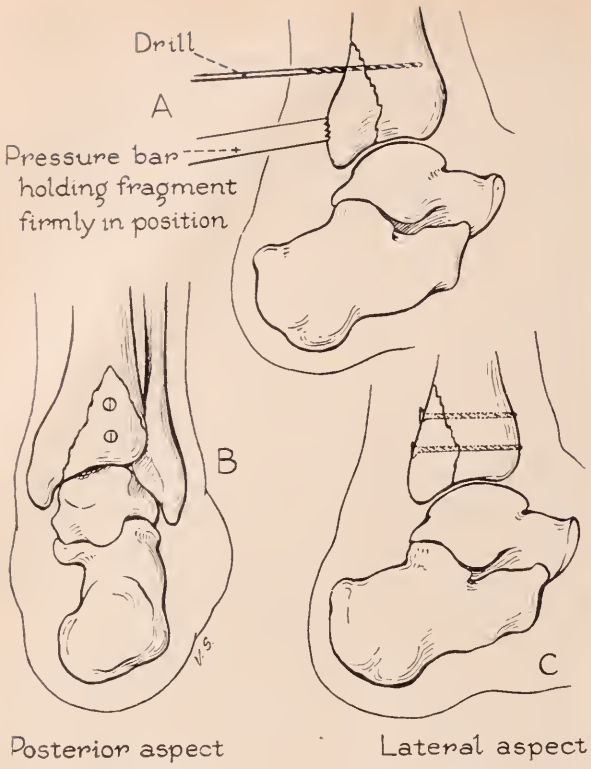


Figure 4. A. The dentated margins of the fracture are anatomically reapposed under direct vision. The serrated end of the pressure bar is broad enough so as not to break through the thin cortex of the lipping fracture fragment, and is used to hold the fragment in place while the surgeon drills the first hole for the insertion of the screw. B. A schematic posterior view of the fracture held in place by two screws. This prevents rotation of the fragment and also adds to the security of the fixation of the fragments. C. It is desired that the screws just engage the anterior cortex of the tibia. If the screws are too short, there is practically no gripping power in the soft cancellous bone. If the screws are too long they protrude into the soft tissue interiorly and cause future trouble. For this reason a Jackson depth gauge to accurately measure the length of the screw is essential.



Figure 5. A. P. injured March 3, 1947. Pre-operative films taken March 3, 1947.



Figure 6. A. P. show result four and one-half months later.

vent postoperative edema. The bandage runs from the toes to the knee. The constrictor is removed after all the dressings have been in place and the pressure bandage applied. In no case has any bleeding of consequence occured. A circular cast is now applied running from the toes to the knee with the foot in very little equinus. We have found that keeping the knee slightly bent and running the cast to the middle of the thigh is not necessary and offers only theoretical advantages.

Postoperatively the patient is again placed on the Thomas splint with elevation of the leg. This makes the patient more comfortable and prevents postoperative swelling of the extremity.

At the end of two weeks the sutures are removed and a new cast applied. The patient is permitted to be up on crutches with absolutely no weight bearing.

Ten to twelve weeks postoperatively the cast is slit and physical therapy is instituted. Heat,



Figure 7. M. E. injured July 7, 1947. Pre-operative films taken July 7, 1947.



Figure 8. M. E. show result five months later.

massage and graduated exercises of the ankle are performed daily. Whirlpool to the leg is also advantageous.

It must be remembered that the lower end of the tibia is cancellous bone and this requires a minimum of 120 days to heal by callus formation. Therefore weight bearing is not permitted prior to that time.

The usual period of total disability in the average uncomplicated case is in the vicinity of five to six months from the date of surgery.

CONCLUSIONS

Twenty-eight cases have been operated by the authors in the last seven years with very excellent results in the majority of the cases. Failure resulted in two cases because of inability to obtain the reduction desired. Both of these cases required ankle fusion.

Fragments involving less than 20% of the bearing surface of the tibia usually do not require surgery and can be treated by reduction and immobilization in plaster.

Fragments involving more than 20% of the bearing surface of the tibia had best be treated by open reduction, anatomical reapposition and internal fixation if a successful outcome is to be anticipated. The earlier these cases are operated, the better are the chances of success.

Old posterior lipping fractures with a persistence of the orginal pathology had best be treated by a primary ankle fusion.

Diet and Pre-Eclampsia

Howard L. Penning, M.D.
Springfield

Pre-eclampsia as defined by the American Committee on Maternal Welfare is a disease dependent on or peculiar to pregnancy. The classical picture of abnormal weight gain with edema, hypertension and albuminuria is chiefly noted in the last trimester. The syndrone, however, begins developing late in the first trimester or early in the second trimester, first manifested by low blood pressure and a tendency to gain weight. In the last trimester there is a sharp rise in blood pressure and the appearance of albumin in the urine, with edema present. Characteristically, the majority of these syndrones seldom end in eclampsia but are terminated by emptying of the uterus, either spontaneous or otherwise and the patient rapidly returns to a normal blood pressure, clear urine and extreme loss of weight produced by diuresis.

The viewpoint that pre-eclampsia is a toxemia of "late" pregnancy is held by many, however, the insidious onset begins much earlier. Some years ago, Falls recommended that a better term for pre-eclampsia was Eclamptogenic toxemia. We wonder if this term does not better describe the genesis of the toxemia and emphasize the need for early prophylaxis before the condition becomes clinically evident.

When one carefully evaluates the histories of previous labors, one comes to the conclusion that pre-eclamptic toxemia is far more common than some statistics would lead us to believe. This is possibily due to the fact that statistics are generally taken from sources where prenatal care is apt to be good. This observation, however, is supported by a recent report by de Alvarez[1] of Michigan, who found that 75.9% of their toxemias were "true" toxemias of pregnancy.

While much has been written on the treatment of pre-eclampsia, it is felt that not enough emphasis is given to prevention. The scope of this paper is to stress the simpler procedures available to every physician in preventing pre-eclampsia and its sequel, eclampsia.

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The nutritional requirements and deficiencies in pregnancy have been discussed by many observers. A round-table discussion led by Dr. Philip F. Williams[2] at the Third American Congress in Obstetrics and Gynecology, pointed out the general deficiency of the diet of the average American woman. It was observed that "whatever the cause, there are widespread deficiencies in the intake of protective foods, the sources of proteins, minerals, and vitamins among the diets of American women". One group of pregnant women of average economic status was reported to have an average protein intake in self-chosen diets of 58 gms. daily. This is contrasted with the recommendation of most authors that the daily protein intake be over 100 gms. The normal non-pregnant individual requires a gram of protein in the diet for every 2.2 lbs. of body weight[2].

One of the simplest observations to make in the prenatal period is the weight of the pregnant woman and the rate of weight gain. It is also one of the most important records and the one most neglected. The patient who is already obese, or who shows an early tendency to excessive weight gain is more likely to develop or be developing toxemia. Mengert[3] in studying a series of 641 obese patients, found an incidence of 31.4% of toxemias of pregnancy.

The normal weight gain for the average pregnancy is somewhere between 16 and 20 pounds. Dieckman advises an optimum weight gain of 16 pounds. The normal increase in weight is accounted for by the weight of the baby, the enlarged uterus, the placenta and amniotic fluid, the physiologic increase in blood volume and the hypertrophy of allied organs.

Loughram[4] advises limiting the weight gain in the first half of pregnancy to ¼ pound per week, with a maximum of 15 pounds allowed for the entire pregnancy if the original weight was normal. Numerous observers have pointed out the significance of weight gain in toxemias. Abnormal weight gain can only be due to increased body mass or obesity, or to water retention. We believe that water retention is very significant in pre-eclampsia since the weight loss

after delivery is usually produced by diuresis.

The exact etiology of water retention is not well understood. Hormonal balance may be a factor. There are, however, two factors that seem significant: protein metabolism and sodium ingestion. It is well known that a lowering of the plasma proteins is conducive to tissue edema, particularly when it is associated with increased venous pressure as is found in many pregnant women.

A deficiency in protein in the diet will lower the nitrogen level; a consequent depletion of the body tissue to supply normal protein requirements, may lead to nutritional edema. As has been stated before, the average adult female diet definitely is not high in proteins, but rather characterized by a preponderance of carbohydrates. Women generally are not meat eaters; consequently the low protein diet may be significant. Williams states that the daily ingestion of a large serving of meat, a quart of milk, and 2 eggs will furnish 85 gms. of protein. Other proteins may bring the intake up to 100 gms. daily. Such a protein intake will supply approximately 1/6 of the 2,500 calories needed daily by the active pregnant woman. Carbohydrate intake should be individually controlled, for an excess leads usually to lowered intake of the protein and vitamin rich foods.

Luikart[5] reports 1000 patients on a high protein, low caloric diet none of which developed toxemia, pre-eclampsia or eclampsia.

Looking at the role played by sodium chloride, it is generally held that the sodium ion is a chief offender in the production of tissue edema. Numerous workers have demonstrated the storage of sodium and potassium in extra-cellular fluids. The relation of sodium chloride and water to the interchange of inter-cellular and extra-cellular ffuids is important during pregnancy. An impaired elimination of, or an excessive intake of either or both, contribute to the production of edema during pregnancy. It is a fact that toxemias are not developed among pregnant animals and when one examines the basic differences in diets, the administration of sodium chloride to the diet is the one outstanding feature.

Strauss[6] was able to produce or relieve water-retention toxemia by manipulation of the sodium intake.

At the present time most obstetricians adopt a decreased allowance of sodium chloride in the diet when edema arises during pregnancy. It has been observed, however, that there can be an increase in body weight of 15 pounds from hydremia, before it becomes manifested clinically. So a woman can have a tremendous increase in water in the tissues and destroy an electrolyte mechanism without it being recognized by the physician[2].

It would seem that since weight gain is the earliest symptom of the development of pre-eclampsia, if we can control or prevent the abnormal gain, we can prevent or treat pre-eclampsia before it appears. Actually diet can accomplish very little after the syndrone has developed, because of the shorter time element.

We feel that the time to institute corrective dietary measures is long before the condition becomes clinically evident. A simple dietary control can be applied to all patients with few exceptions. First of all a high protein diet should be emphasized. Animal protein, chiefly in the form of meat should be a part of at least two meals a day, giving a protein intake from 100 to 120 gms. per day. The fat intake should be low and starches restricted. Unless the starches are specifically limited, the average patient will consume 50% of her diet as starch. This, however, is an individual problem and must be handled individually. A patient who is not having a satisfactory weight gain must have starches added to her diet rather than taken away. The patient must be urged to eat fresh fruits and vegetables. Milk should be encouraged, with the cream removed if the patient is obese. At least 1 egg a day should be taken.

A low salt diet is most important. It is not enough to tell the patient to not eat salt, she must be specifically instructed to use salt sparingly, seasoning fresh foods as cooked, but not adding more salt at the table, and, most of all to avoid the foods already prepared with excessive salt, such as: processed meats of all kinds, canned vegetables and soups, relishes, pickles, tomato juice, popcorn, nuts, canned fish, etc. Other forms of sodium must be designated in the instructions to the patient. Bicarbonate of soda will be used for "heartburn" unless specific instructions are given to avoid its use.

For the patient who simply over eats and is miserable because of her excessive appetite, we

prescribe dextroamphetamine sulphate in 5 mgm. doses, one hour before meals.

Careful scrutiny of weight gains usually brings satisfactory "weight consciousness" in the patient. A gain of 1 pound per week is regarded as significant. The doctor must often be a detective in searching for the faulty factor when a satisfactory response is not obtained in spite of the patient's protests that she has followed the diet.

The specific gravity of the urine is a useful clue to "cheating" on salt ingestion: when the specific gravity goes up and there is associated weight gain, it is usually due to water and sodium retention. If we cannot discover the offending element in the diet we have the patient list everything taken by mouth for one week and at the same time induce an acid diuresis by administering Ammonium Chloride in 45 grain daily doses. It is best given at four day intervals, followed by two days rest. Given thus, Ammonium Chloride remains effective as a mobilizer of sodium and promotes its excretion for long periods. Occasionally magnesium sulfate is given to increase fluid elimination by way of the G. I. tract.

It is well to remember that there are many sources of sodium and that all have to be considered in the susceptible patient. Recently a seven pound gain in two weeks was noted in a primipara. She firmly asserted that she was following a "low salt diet". On questioning her it was discovered that she was drinking large amounts of tomato juice, which is notoriously high in salt content. Elimination of the tomato juice restored the water balance.

In general the more frequently the patients are seen the better the control. At the present time patients are reporting earlier in pregnancy than was true a few years ago. It is not at all uncommon for patients to report two weeks after a missed period. This gives the physician a considerable advantage in managing the pregnancy. We have followed the regime of forced hydration advocated by Eller[7] and Randall with very good results in treating and preventing nausea and vomiting. Routinely, we see our patients every three weeks until the 24th. week, then every two weeks until the 36th. week, then at weekly intervals until term.

Our series of cases is not large. They are all taken from private practice since the war. The results in following this regime have been significant enough to convince us that the incidence of pre-eclampsia in our practice has been below that in our community. Of 450 cases none were hospitalized because of pre-eclampsia. There have been one essential hypertension and three nephritic toxemias, which were hospitalized because of impending kidney failure. All were successfully delivered. One of the latter babies died 48 hours after delivery.

Weight control has been gratifying to most patients. Where patients were overweight at the beginning an attempt was made to effect a net loss during pregnancy. One patient was 5 feet tall and weighed 205 pounds when first seen at 10 weeks; at 6 weeks post partum, she weighed 162 pounds. Her baby weighed 8½ pounds at birth. It is not always easy to overcome the prejudice against diet restriction during pregnancy which is so prevalent among the laity. Most of the Grandmas are certain the baby will be too small.

CONCLUSION

Dietary management presents a potent weapon in the hands of the physician for the prevention of pre-eclampsia. Control of weight gain, adequate protein intake and restricted sodium intake for all patients may greatly reduce the incidence of pre-eclampsia.

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Diagnosis and Treatment of Diseases of the Parathyroid Glands

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Diseases of the parathyroid glands, though encountered infrequently, are usually amenable to treatment if diagnosed early. It seems worthwhile, therefore, to review certain physiologic concepts regarding these endocrine glands and to identify criteria for diagnosis and treatment.

ANATOMY

The parathyroid glands are small brownish-red bodies, measuring about 5 mm. by 3 mm. by 1 mm. and resembling flattened oval discs. They are usually located posterior to the thyroid gland and consist of two superior and two inferior glands. Aberrant parathyroid tissue may be found in the neck or upper mediastinum. Gilmour and Martin found the average weight of the glands to be less than 263 mg. in males and 295 mg. in females[1]. Embryologically, the parathyroid bodies develop as outgrowths from the third and fourth branchial pouches. Histologically, the glands consist of masses of cells arranged in columns with many intervening capillaries.

PHYSIOLOGY

The parathyroid bodies are endocrine glands whose presence is vital to the organism. Experimental removal results in tetany, with death occurring by asphyxia and laryngeal spasm due to an acute disturbance of the calcium-phosphorus balance[2]. Regulation of this balance is the only known function of the parathyroid glands. A brief discussion of calcium-phosphorus metabolism is necessary for complete understanding of parathyroid physiology.

Calcium metabolism.—Over 99 per cent of the body calcium is located in the bones and teeth with the remainder in the blood and other body fluids. Calcium is absorbed from dietary foodstuffs in the upper intestine. Calcium deposition in bone and absorption from bone occur constantly and under normal conditions balance each other. Calcium is lost from the body principally in the urine and feces but also through the placenta and lactating breast.

The normal value for calcium is 10.5 ± 1.0 mg. per 100 cc. of blood. About 50 per cent is rigidly bound to protein. The remaining fraction occurs in the ionic form and is affected by the parathyroid glands. An exact picture of calcium metabolism can be obtained only if both the serum calcium and the serum proteins are determined. By correlating these values, according to the nomogram of McLean and Hastings[3], accurate impressions can be obtained.

Phosphorus metabolism.—Phosphorus likewise occurs predominantly in bones and teeth. Serum phosphorus exists as inorganic phosphate, the normal value being 3.5 ± 0.5 mg. per 100 cc. of blood. Organic phosphorus compounds are found in certain body tissues but are unaffected by the parathyroid glands.

The reciprocal relationship between the calcium and the phosphorus content of the blood may be expressed as the equation $(Ca^{++})^3 \times (PO_4\equiv)^2 = K$. In conditions where the serum calcium is reduced, the serum phosphorus is elevated and vice versa. The parathyroid glands are important in maintaining this relationship.

Metabolism of bone.—The storage of calcium carbonate and tri-calcium phosphate in bone depends upon the osteoblastic activity of the bone-forming cells and the osteoclastic activity of the bone-destroying cells. Normally these processes are in a state of balance. Alkaline phosphatase is an enzyme supporting the deposition of calcium and phosphorus in bone. The measurement of alkaline phosphatase in serum is an index of the osteoblastic activity of bone. Elevated readings are obtained in bony diseases with marked osteoblastic regeneration.

Action of parathyroid hormone.—No parathyroid substitution therapy was available until 1925 when Collip obtained an extract from beef

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parathyroids capable of elevating the serum calcium of tetanic individuals[4]. This substance was called parathormone and furnished specific therapy for parathyroid insufficiency. When parathyroid extract is injected into experimental animals or normal human beings, hyperphosphaturia, hypophosphatemia, hypercalcemia, and hypercalciuria are obtained. Albright[5] feels that the primary action of parathormone is a phosphate diuresis with secondary blood changes. Collip[6] believes that parathormone directly stimulates osteoclastic activity in bone. These opposite theories are as yet unproved, and it may be possible that parathyroid extract acts on both bone and kidney.

Relationship to other endocrine glands.—No other endocrine gland affects calcium and phosphorus metabolism as intimately as the parathyroid glands. The existence of a specific "parathyreotropic hormone" secreted by the anterior pituitary gland has been postulated[7] but never proven. Pope and Aub, in their review, could find no consistent or conclusive evidence for such a relationship[8]. The only important connection between the thyroid and parathyroid glands is their contiguity in surgical procedures.

HYPOPARATHYROIDISM

Accidental removal of parathyroid tissue during thyroidectomy is the most common cause of hypoparathyroidism. More rarely, parathyroid insufficiency follows the purposeful removal of overactive parathyroid glands to alleviate hyperparathyroidism. Drake and associates described chronic idiopathic hypoparathyrodism, a rare condition in which the glands are replaced by fatty tissue[9].

Clinical picture.—The most important findings are the low serum calcium and the high serum phosphorus[10]. The clinical picture consists of signs of neuromuscular excitability, such as paresthesias of the hands and feet and muscular twitchings. Carpopedal and laryngeal spasms, positive Chvostek and Trousseau signs, and convulsive seizures may be encountered. Cataracts are frequent complications in long-standing cases. Changes in the nails and hair have been described[11]. Camp summarized twelve cases of hypoparathyroidism with basal ganglia calcification and recommended routine skull roentgenograms in this condition[12].

Differential diagnosis.—Other causes of hypocalcemia, such as rickets, steatorrhea, and renal insufficiency, must be excluded. Tetany may also be due to the alkalosis of hyperventilation, excessive ingestion of alkali, and loss of gastric contents.

Treatment.—No satisfactory therapeutic agent was available until 1925 when Collip introduced parathormone as specific therapy for hypoparathyroidism[4]. However parathyroid extract is expensive, requires parenteral administration, and gradually loses its effectiveness in some cases.

In 1933, dihydrotachysterol (AT 10) was introduced[13] and is now preferred therapy[14]. AT 10 is administered orally in initial daily doses of about two to four cc. Urines should be checked daily for calcium content by the Sulkowitch test[15]. When heavy white precipitates form consistently, the dosage of AT 10 should be reduced to a maintenance level of 1 cc. three to five times weekly. Hypercalcemia is not without danger, and a slightly subnormal serum calcium is preferable. Serum calcium and phosphorus determinations may also be performed.

Calciferol (vitamin D_2) is a cheaper preparation but not as effective as dihydrotachysterol. Certain mild cases can be maintained on daily dosage of 50,000—200,000 units.

For the acute exacerbations of tetany, intravenous injections of calcium may be administered. Diets high in calcium and low in phosphorus are desirable, but milk is contraindicated because of its high phosphorus content. One teaspoonful of calcium lactate or gluconate, dissolved in hot water three times daily, insures adequate calcium intake.

PSEUDOHYPOPARATHYROIDISM

In pseudohypoparathyroidism, a rare disease first described by Albright,[16] the organism fails to respond to the parathyroid hormone although no deficiency exists. This condition is not affected by parathyroid extract but improves with AT 10 and calciferol therapy[17].

PRIMARY HYPERPARATHYROIDISM

"Primary hyperparathyroidism" is a condition in which more parathyroid hormone is produced than is needed. In secondary hyperparathyroidism the excess is present for some compensatory purpose.

History.—Osteitis fibrosa cystica was first described in 1891 by von Recklinghausen[18]. However, its relationship to hyperparathyroidism was not known until 1925 when Mandl cured a patient by surgical removal of a parathyroid tu-

mor[19]. In 1934, Albright and colleagues directed attention to the frequent occurrence of renal calculi in these cases[20]. Later they reported hyperfunctioning parathyroid tumors with renal calculi and without bone disease[21]. Hyperparathyroidism due to primary hypertrophy (hyperplasia?) of parathyroid tissue was first described in 1938[22].

Symptomatology.—Most parathyroid tumors are not palpable and must be recognized by the clinical symptoms which fall into three general groups:

(1) *Symptoms due to hypercalcemic blood changes*:

In contradistinction to tetany, these are vague and consist of muscular atony, weakness, and constipation.

(2) *Symptoms due to urinary tract involvement*:

Hypercalciuria and hyperphosphaturia are accompanied by polyuria and polydipsia, so that diabetes insipidus may even be suspected. The calcium and phosphorus salts may precipitate in the urinary tract as renal calculi or in the renal parenchyma as nephrocalcinosis. Renal colic, urinary infections, and uremia are common complications.

(3) *Symptoms due to skeletal involvement*:

Minimal bone changes may cause no symptoms or slight aching. As the disease progresses, bone cysts, giant-cell tumors, pathologic fractures, and severe deformities may result.

Laboratory findings.—The cardinal laboratory findings are the increased serum calcium and the decreased serum phosphorus. In 22 per cent of the cases reported by Keating and Cook,[23] at least one calcium and one phosphorus reading were normal. Repeated determinations of the serum calcium, phosphorus, and proteins may be indicated in suspicious cases.

Hyperparathyroidism must be differentiated from vitamin D intoxication, which also increases the serum calcium. A period of observation without vitamin D therapy may be indicated.

The Sulkowitch test[15] may be used as a rough guide for the amount of calcium excreted in the urine. A negative test usually rules out hyperparathyroidism whereas a positive test encourages further studies. Quantitative determinations of urinary calcium are impractical for routine use.

The earliest skeletal change is diffuse osteoporosis of the skull, and in later stages generalized demineralization and subcortical resorption may be found. The advanced changes of osteitis fibrosa cystica are eventually seen. Osseous lesions indicate the duration of the disease rather than the severity. In hyperparathyroidism, the serum alkaline phosphatase, being a reflection of osteoblastic activity, is elevated only in the presence of bone disease. Dental roentgenograms may reveal demineralization of the mandible, disappearance of the lamina dura, and epulis tumors. On the basis of these findings, hyperparathyroidism may be first suspected by the dentist.

Treatment.—The treatment of primary hyperparathyroidism is surgical exploration of the neck, and, if necessary, the mediastinum. In about one-fourth of Cope's cases[24] the tumors were located in the mediastinum. Preoperative calcium administration should be avoided because of the dangers of producing acute parathyroid intoxication[25].

In the presence of normal renal function and a normal serum phosphatase (i.e. no bone disease) the tumor or tumors should be completely removed. If the pathologic change is primary hypertrophy, three parathyroid glands and only a portion of the fourth should be resected. In the presence of elevated serum phosphatase and bony lesions, postoperative tetany is often a serious complication. Albright favors incomplete removal of the hyperfunctioning parathyroid tissue in these cases[26]. In the presence of kidney damage, surgical resection should be conservative since some of the parathyroid hypertrophy may be on a compensatory basis.

Pathology.—Pathologists disagree in their analyses of the hyperfunctioning parathyroid tumors. Castleman and Mallory regard them as benign adenomas[27]. Alexander and associates feel that many of their cases present cytologic evidence of low-grade malignancy[28]. Usually these tumors behave in a benign manner with few reported cases of metastases[29].

SECONDARY HYPERPARATHYROIDISM

Since 1905, it has been known that chronic glomerulonephritis may be associated with parathyroid enlargement[30]. Pappenheimer and Wil-

ens found an actual increase in the weights of parathyroid glands in nephritic cases[31] and were able to produce parathyroid enlargement by experimental surgical reduction of renal substance[32]. The effects of this secondary parathyroid hypertrophy were not clearly recognized until 1937 when Albright, Drake, and Sulkowitch reported the first comprehensive study of this condition[33]. Their suggested nomenclature was "Renal Osteitis Fibrosa Cystica" but recently the term "Renal Osteodystrophy" has been proposed[34]. The salient features of this disease are:

(1) Marked renal insufficiency of long duration.
(2) Phosphate retention with a high serum phosphorus level.
(3) Slight reduction in serum calcium.
(4) Marked acidosis.
(5) Metastatic calcium deposits near joints.
(6) Mönekeberg sclerosis.
(7) Osteitis fibrosa generalisita.
(8) Enlargement of parathyroid tissue.

Albright believes that the parathyroids hypertrophy in renal insufficiency to compensate for the phosphate retention and the low serum calcium level[26]. In this manner, secondary hyperparathyroidism probably prevents severe tetany in many cases of renal insufficiency.

The clinical findings in renal rickets or renal dwarfism resemble those of secondary hyperparathyroidism. In each condition the primary lesion is renal with secondary parathyroid hypertrophy and bone changes. Most authors feel that renal rickets is the juvenile counterpart of the adult renal osteitis fibrosa cystica[35].

The clinical differentiation of primary from secondary hyperparathyroidism may be difficult but is very important. Surgical removal on the one hand may be curative, and on the other hand may be life-endangering. The most valuable laboratory finding in this differentiation is the serum calcium determination which should be elevated in the former and normal or low in the latter condition. Cases have been reported in which both primary and secondary parathyroid hyperfunction occurred in the same patient[36].

COMMENT

Undoubtedly, more cases of primary hyperparathyoidism occur than is generally believed. Alexander and associate found only fourteen cases at the Mayo Clinic in a fourteen year period[28]. In a subsequent two and one-half year period at the same institution, Keating and Cook diligently searched for parathyroid tumors and identified twenty-four cases[23]. Ninety-two per cent of these cases had renal calculi and only 67 per cent had skeletal lesions.

These hyperfunctioning parathyroid tumors should be diagnosed and removed surgically before irreparable renal changes occur. For early diagnosis, attention must be concentrated on the kidney rather than on bone. By the time skeletal lesions appear, the kidneys are already damaged. Special emphasis should be placed on renal calculi since about 4 to 5 per cent of all kidney stones are said to be due to hyperparathyroidism[37].

Every patient with renal calculi or ureteral colic should have routinely, at least one serum calcium, phosphorus, and protein determination as a screening procedure. Frequent Sulkowitch testing of the urine may be helpful. Patients with recurrent renal calculi should be seriously suspected of having a parathyroid tumor and repeated blood studies may be necessary in some cases. If the diagnosis of parathyroid tumor cannot be excluded with certainty, surgical exploration should be performed.

SUMMARY

The parathyroid bodies are endocrine glands important in the regulation of the calcium-phosphorus balance. The only significant parathyroid disturbances result from an excessive or deficient production of parathyroid hormone. Criteria for recognition and treatment of these conditions have been discussed.

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MOTION PICTURE REVIEWS AVAILABLE

The Committee on Medical Motion Pictures of the American Medical Association has completed the second revised edition of the booklet entitled *Reviews of Medical Motion Pictures*. This booklet now contains 225 reviews of medical and health films reviewed in *The Journal, A.M.A.* to January 1, 1950. Each film has been indexed according to subject matter. The purpose of these reviews is to provide a brief description and an evaluation of motion pictures which are available to the medical profession. Each film is reviewed by competent authorities and every effort has been made to published frank, unbiased comments. Copies are available at a cost of 25 cents each from: Order Department, American Medical Association, 535 North Dearborn Street, Chicago, 10, Illinois.

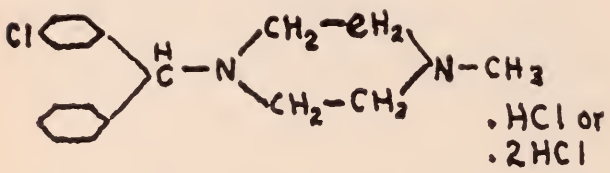
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Histamine Antagonists

XVI. N-Methyl-N'-(4-Chlorobenzhydryl) Piperazine Hydrochloride (Chlorcyclizine).* A New Antihistaminic Compound With Tendency to Prolonged Action.**

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Since increased duration of action is one of the few justifications for the addition of new antihistaminic compounds to our already long list my interest was aroused when in the summer of 1948 a compound with such apparent experimental background was presnetd to me for experimental and possible clinical trial. This compound is N-methly-N'-(4-chlorobenzhydryl) piperazine hydrochloride**



which for the purpose of brevity I shall refer to in this paper as Chlorcyclizine.

EXPERIMENTAL FINDINGS

In our animal experiments it soon became evident that the onset of maximum activity of this compound was delayed. In the intraperitoneal injection of the drng in protection against shock from intravenous histamine in guinea pigs an hour had to be allowed as the interval as compared with the customary 30 minutes. In these experiments 1 mg. of the drug prevented death from 1MLD100 of histamine (0.4 mg. histamine base per kg.) in 4 out of 5 animals. A dose of 0.1 mg. of the compound gave similar results. These quantitative findings compare favorably with many other antihistaminic compounds. No studies on duration of effectiveness were made in this particular experiment.

Dyspnea in guinea pigs from aerosolized histamine could be prevented by a dose of 8 mg/kg of the compound given intraperitoneally 30 minutes before histamine exposure and by 3 mg. if given 60 minntes before exposure. The duration of a measurable degree of protection against histamine aerosols after such intraperitoneal doses was 7 hours. This duration is definitely longer than with most drugs, which average about 4 hours.[1] An aerosol of Chlorcyclizine of 2 per cent or greater gave only incomplete protection against histamine aerosol and the duration of this effect was 45 minutes. Both in duration and degree of effectiveness from such topical application the drug was distinctly inferior to many of the other potent antihistaminic compounds.

In the prevention of anaphylactic shock in guinea pigs a dose of 3 mg. per kilogram given intraperitoneally prevented fatal shock in 5 out of 5 animals when the challenging dose was given 1 hour later. With a 1 mg. dose the shocking injection was fatal to 3 ont of 10 animals. Controls in this series showed 85 per cent mortality.

Studies were made on the effect of this drug in inhibiting the histamine skin reaction in man. Two methods were nsed. One was the method previously described and modified by us, in which quantitative studies of the histamine flare are made after pretreatment of the abraded skin sites with various concentrations of the antihistaminic compound.[2] By such technic the inhibiting effect of this compound was weak, even when the usual 10 minute exposure to the compound was increased to 30 minntes. The

*This compound is designated as "Di-paralene" by Abbott Laboratories and as "Perazil" by Burroughs-Wellcome and Company.

**This compound was presented to me practically simultaneously by two pharmaceutical houses, the mononydrochloride by Abbott Laboratories and the dihydrochloride by Burroughs Wellcome and Company.

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inhibition of the histamine flare was studied also after the oral administration of this antihistaminic compound.[3] The results showed marked variabilities not encountered in similar studies with other antihistaminic drugs. In some subjects the degree of inhibition equaled that of Pyribenzamine, in others it was slight and in still others no inhibiton of the flare whatsoever could be demonstrated. In those subjects where the degree of inhibition was good the maximum effect was obtained in some in 1 hour (this is the usual time with other antihistaminics), in others in 2 to 3 hours. The duration of effect in some cases was 4 hours while in others it was 8 to 18 hours. One could not escape the impression from these findings that this compound is peculiar in that its action is variable and capricious, and perhaps dependent on individual variations in capabilities of metabolizing it. The rather weak action of this drug when applied locally to the human skin or to the guinea pig's bronchial mucosa lends further credence to the likelihood of a metabolic (internal) factor being involved in activating this drug.

It should be emphaized that in the histamine skin reactions we adopted the flare measurement as a criterion of response. We were perfectly aware of the general concept that the wheal (edema) is regarded as the direct effect of the histamine while the flare is considered as an axone reflex. Nevertheless, hundreds of actual experiments with histamine indicated that the flare is quantitatively related to the amount of histamine, that its degree of inhibition is quantitatively related to the amount of antihistaminic drug previously applied and that it could be much more accurately measured than the wheal.[2] Indeed, in a large percentage of experiments the wheals were entirely too small or unclearly defined to permit accurate measurements.

Chlorcyclizine was selected by the two laboratories which presented it to me as the most promising compound from a series of substituted piperazines.([4,5,6,7,8]) Castillo and his associates[9] demonstrated interesting pharmacologic activity with Chlorcyclizine. The histamine contraction in the tracheal chain experiment showed prolonged inhibition. The prevention of asphyxial collapse from histamine aerosol in the guinea pig by oral ingestion of 25 mg. of the drug per kilogram compared favorably with other antihistamines. These authors claimed that some of the inhibition could be demonstrated as long as 43 hours. The compound had some antiacetylcholine action and slight anti-$BaCl_2$ effect. Local anesthetic action was the same as with Benadryl and 1 per cent solution in the rabbit's eye caused no mydriasis. The LD50 in mice from single intraperitoneal doses was 137 mg. per kilogram, comparing favorably with many other antihistamines.

Roth and his coworkers[8] report that with 3 mg. of this drug per kilogram intraperitoneally deaths could be prevented in some animals from 1LD100 of histamine intravenously after 18 hours and longer. A dose of 0.1 mg/kg. intraperitoneally or 2.5 mg/kg. orally after 1 hour gave complete protection to 1LD100 histamine intravenously. The antiacetylcholine value (rabbit intestine) was about 1/100 that of atropine.

Jaros and his associates[10] report a study of the effect of 100 mg. doses of Chlorcyclizine orally on the histamine wheal of the human skin. The method used was only a slight modification of the technic as to the instrument, method of application, dilutions of histamine and other particulars outlined by me personally to Jaros in the autumn of 1948. The only essential modification of their technic consisted in the fact that they measured the wheal instead of the flare. The authors conclude that their findings demonstrate an effectiveness of inhibition greater than Pyribenzamine and they claim that this effect is still demonstrable after 32 hours, as compared with 24 hours for Pyribenzamine. With the technic outlined the accuracy and significance of wheal measurements are open to question. For example, the authors present a representative table of wheal measurements in which figures of 0.5 to 2.5 mm are recorded. Claims based on accuracy of measurement of such small and ill-defined histamine wheals are open to doubt as to their significance.

CLINICAL EXPERIENCE

The drug was administered to over 200 patients and of these data on 183 patients were obtained. The allergic manifestations consisted of 125 instances of seasonal hay fever, 13 cases of perennial vasomotor rhinitis and 71 miscellaneous allergies, some patients having more than one complaint. The patient was instructed to take the tablets when needed for the relief of the attack. If that was not satisfactory the tab-

TABLE 1
HAY FEVER

RESULTS OF TREATMENT WITH CHLORCYCLIZINE

		Type of Hay Fever			Dose of Drug		
Desensitized patients	87	Grass	Ragweed	Mold	25mg.	50mg.	100mg.
Not helped	41	8	36	23	1	33	7
Helped	46	10	40	17	2	43	1
Non-desensitized patients	38						
Not helped	22	3	20	7	1	18	3
Helped	16	6	11	11	0	15	1

lets were taken in the morning and at bedtime. In some instances, where the symptoms were present during the night or early morning only, a bedtime dose of the medication was tried. Although both the monohydrochloride and dihydrochloride were used separately the data were combined since it was obvious that the effects were identical. The results are recorded simply as "helped" or "not helped". If the drug was only occasionally effective or only slightly so its value was regarded as questionable and the result was not included in the "helped" column.

Hay Fever. Table 1 shows results in seasonal hay fever, mainly during 1949. It will be noted that 62 patients out of 125 obtained effective relief with this drug.

However, by the use of a punch card record system a number of other interesting facts could be correlated. Those patients who had received desensitizing treatment were separated from those who had not had treament. It will be noted that a greater percentage of the desensitized patients were helped by the drug. Furthermore, in the latter group the use of this and other antihistaminic drugs was in many instances only occasional, whereas in the non-desensitized group the antihistaminic drugs more often had to be given frequently and continuously. The degree of relief, too, was usually more complete in the desensitized group. In many patients in the non-desensitized group who where included in the "helped" column the results were satisfactory in the beginning or mild parts of the season, whereas later or in the heavy portions of the season the antihistaminic drugs would fail to produce any effect. This was also noted in the desensitized group but was less common there. It is particularly worthy of note that in the obstructive stage of the hay fever this drug, as well as other antihistaminic drugs, failed to give relief in the majority of instances.

The hay fever cases were also separated and grouped according to whether they were grass, ragweed or mold. No significant differences were observed. It will be noted that the majority of patients took 50 mg. doses. Those who took 100 mg. doses were mainly the ones who failed to obtain benefit from the 50 mg. doses.

Other Manifestations. Table 2 indicates a list of a number of allergic complaints in which Chlorcyclizine was used. While most of the groups do not have a sufficient number of cases from which to draw conclusions it is quite obvious that this drug does not give the consistant relief described recently by Jaros.[11] According to that author one daily 50 mg. dose of the drug produced satisfactory results in 22 out of 23 hay fever patients, 18 out 21 vasomotor rhinitis, 7 out of 7 cases of urticaria, and 17 out of 18 of dermatitis of various types. Our results in vasomotor rhinitis in which 18 out of 43 were helped fall below the efficacy we have obtained with most other antihistaminic drugs. Chlorcyclizine had very little effect in asthma, helping only 3 out of 36, and never in an acute attack. This lack of effectiveness in asthma is in line

TABLE 2
MISCELLANEOUS ALLERGIC MANIFESTATIONS RESULTS OF TREATMENT WITH CHLORCYCLIZINE

	Total	Not helped	Helped
Perennial rhinitis	43	25	18
Asthma	36	33	3
Cough	8	4	4
Urticaria	7	4	3
Atopic dermatitis	11	4	7
Dermographism	1	0	1
Contact dermatitis	2	0	2
Pruritus ani	1	1	0
Miscell. dermatitis	3	2	1
Headache	2	2	0

with our experience with other antihistamines and constitutes a potent argument against the neglect of desensitization in the hay fever-asthma syndrome. It might be added that the only asthma patients in whom we used this drug were those who had an associated hay fever or perennial rhinitis.

Speed and Duration of Action. In view of some of the experimental claims for this compound it was advisable to study speed of action and duration of clinical effectiveness. It is difficult to obtain such data from most patients. This is particularly true of duration of effect. In most instances the allergic symptoms without the use of any drug occur only during part of the 24 hour period. For example, a large number of hay fever patients have an hour or two of morning symtoms and have no further recurrence until night or the following morning. If the antihistaminic drug results in relief in a half hour or an hour and the symptoms recur in the evening or the next morning it is not to be concluded that the effect of the drug was of 12 or 24 hours duration. As a matter of fact, one cannot employ such patients for the study of duration of effect. Hence, it is obvious that such observations can only be made in a limited group.

The speed of action needs some comment. From Table 3 one gets the impression that this speed of action is the same in most instances as with other drugs. However, this may be misleading, since those patients in whom the onset of effect was delayed were not likely to time it. In other words, those patients who failed to obtain effect in an hour or 1½ hours were instructed to take the dose twice daily at regular times. In such cases the timing of effect could not be ascertained by the patient.

The duration of effect showed a tendency to be increased as compared with other antihistaminic drugs. Most of the patients listed in the 3-6 hour group had results lasting only 4 hours. On the other hand, there were an appreciable number of patients having relief longer than 8 hours. In no instance was there clear evidence of effect lasting as long as 24 hours. The most striking impression one gains is that this drug appears to be unique in its variability of duration. Not only may it fail to produce any effect at all, but when the effect is present it may last 4 hours or as long as 15 hours.

TABLE 3
SPEED, DURATION OF EFFECT AND PERIOD OF USE

Speed of action		Duration of effect		Period drug was taken	
½ hr.	18	3 hrs.	0	Less than 1 week	94
1 hr.	8	3-6 hrs.	15	1-6 weeks	68
1½ hr. to 2 hrs.	3	6-8 hrs.	17	1½-3 mons.	17
		8-11 hrs.	6	More than 3 mos.	4
		12-15 hrs.	7		

The period during which the drug was taken varied primarily with the nature of the effectiveness and nature of the symptomatology. Those who obtained little or no benefit took the medication for a week or less. In all such instances, however, the drug was taken a sufficient number of times to assure us of the constancy of the results. Twenty-one patients took Chlorcyclizine for a period of 1½ to several months. No remote toxic effects were noted in this group.

Doses. The doses on which the results are based are listed in Table 4. Generally, a 50 mg. dose was prescribed. When the latter was not effective it was frequently increased to 100 mg. This explains why the 100 mg. group obtained such poor results: they consisted mostly of those patients who failed to respond to 50 mg. The majority were given 50 mg. (sometimes 100 mg.) twice daily or instructed to take it as needed.

TABLE 4
DOSES OF CHLORCYCLIZINE ADMINISTERED

	Children	Adults
25 mg.		
Not helped	3	2
Helped	2	2
50 mg.		
Not helped	22	44
Helped	22	60
100 mg.		
Not helped	4	17
Helped	0	5

Comparison with Other Antihistaminic Drugs. An attempt was made to administer other antihistaminic drugs in the same patient at different times for the purpose of comparative observation. Out of the entire group, 118 such patients took pyribenzamine or other potent antihistamines to allow such comparison. It must be admitted that such comparisons are prone to pitfalls and misinterpretations, but on the whole

they are of some significance. Thirty-three reported that Chlorcyclizine was less effective than other drugs, while 35 felt that it was more effective. In 50 patients no difference was noted between Chlorcyclizine and other drugs. In 32 of this latter group the results were poor with all drugs.

Toxic Effects. Table 5 shows the incidence

TABLE 5
SIDE ACTIONS FROM CHLORCYCLIZINE

	Children	Adults
25 mg.		
Mild	0	1
Severe	0	0
50 mg.		
Mild	3	11
Severe	4	9
100 mg.		
Mild	0	3
Severe	0	2
Total	7	26

of side actions arranged according to size of dose, age group and severity. It will be noted that the 25 mg. dose produced undesirable effect in only 1 out of 9, the 50 mg. dose in 27 out of 148, and the 100 mg. dose in 5 out of 26. It is interesting to note that while in the entire series 26 out of 129 adults (20 per cent) had toxic actions, only 7 out of 54 children (13 per cent) complained of side actions with similar doses. One cannot be certain whether that is due to a lesser sense of awareness in children or whether due to an actually lesser toxicity. However, the evidence points more to a greater tolerance in children. As with the vast majority of other antihistaminic drugs, sedation was the outstanding side effect. The other toxic actions (see Table 6) were those also usually found with other antihistaminic compounds. As a whole, it

TABLE 6
INCIDENCE OF VARIOUS SIDE ACTIONS

Sedation	21
Dizziness	3
Weakness	4
Disturbed concentration	2
Headache	1
Nervousness	1
Cardiac symptoms	1
Diarrhea	1
Dryness	1

can be said that this drug in the doses employed did not show a great tendency to acute toxicity.

DISCUSSION

A method of record and analysis by a punch card system has given us more pertinent and comparative data in a recent study of antihistaminic drugs. Such a study has indicated that Chlorcyclizine is a moderately effective drug in clinical allergy and that it has some tendency to prolonged action. However, an outstanding characteristic of this compound is that its therapeutic response, topical effectiveness, speed of action and duration of effectiveness are more variable and unpredictable than in the case of other antihistaminic drugs. Such variability might be explained on the basis of a metabolic change of the compound, either to activate it or to inactivate it. This metabolic change must be assumed to be one which varies considerably in different persons. It could take place in the gastrointestinal tract, in the liver or almost any place else. It might even be predicated on differences in gastric acidity. Much work would have to be done to determine the mechanism of this change. If the metabolic factor were found to be a simple one it might be possible to do something to favor the constancy of the action of this drug.

The clinical results of duration of action are not comparable to those reported in animal work. There are several possible reasons to explain this discrepancy. The important fact is to realize that the final evaluation of such a characteristic must be on the basis of its clinical effect. It should be emphasized that the findings on histamine flare studies in man agree pretty well with our clinical experience. A further improvement of such data might be obtained by noting the duration (and degree) of flare inhibition and the therapeutic action of the drug in the same subjects.

One or two other antihistaminic drugs were studied virtually during the same period, frequently on the same patients and analyzed according to the same scheme. One, for example, was a fluorine analogue of Pyribenzamine.[12] It will be noted that the findings with this drug differ materially in many aspects from those with Chlorcyclizine.

It is not easy to compromise our clinical findings with those of Jaros.[11] It might be conceivable that the hay fever findings in Jaros' report rep-

resent very mild cases, managed in a mild season, in a locality with a low pollen count or that the patients constitute a select group. By our study of a sufficiently large and varied group, compared with other drugs, other patients, and an experience of many seasons, we are forced to the opinion that the conclusions of Jaros are premature and will not be substantiated by others. This feeling is strengthened when we compare Jaros' findings with ours in the nonseasonal allergies, manifestations which should show a minimum of variability in different parts of the country.

Some time ago I suggested that in view of the already large number of antihistaminic drugs on the market, the manufacturers should be advised that new drugs in this field should possess one or more of the following advantages: (1) much greater potency; (2) greatly reduced toxicity; (3) considerably prolonged effectiveness and (4) adjunct action (bronchodilator, antihistaminogenesis, sympathomimetic, antiacetylcholine, etc.). Jaros and his associates[10] state that "It is felt that in presenting compound 47-282 (Chlorcyclizine) most of these criteria are met." Our experience indicates that potency of effect is no greater and less consistent than in the case of some other drugs; the toxicity is of a low order, but by no means rare; and adjunct activity is certainly not present. As a matter of fact, only with respect to prolonged action has this compound any advantage. Furthermore, even in this respect there is marked undependability, so that this criterion has not been fully met.

It is well to emphasize again that with this drug as well as in similar studies with other drugs[12] it is obvious that desensitization results in a much lesser need for antihistamine therapy. When antihistaminic drugs are needed the incidence and degree of effectiveness is greater in this group. The tabulated data presented here do not tell the whole story since they do not include a large number of desensitized patients (about 50 per cent) in whom no antihistaminic drugs were required. Most important is the warning that neither this drug nor other antihistaminic drugs relieve an appreciable percentage of asthmas, seasonal or chronic, in spite of the 76 per cent figure claimed by Jaros.[11] On the other hand, desensitization therapy is an excellent prophylactic against asthma, and this should constitute one of the most potent arguments for considering the latter treatment first and the antihistaminics only as adjuncts. It should be added further that the publicizing of the antihistaminic drugs in the last few years for the treatment of asthma has resulted in a distinct decline in the effectiveness of purely symptomatic management. The old reliable antihistamatic remedies, epinephrine, ephedrine, iodides and aminophylline have been largely replaced by the less effective antihistamines. Even the advantages from the progress made with the newer bronchodilators, isopropyl epinephrine and Orthoxine, have not been sufficient to compensate for this loss.

SUMMARY

1. Experimental and clinical findings are presented for a new antihistaminic compound, N-methyl-N'-(4-chlorobenzhydryl) piperazine hydrochloride (Chlorcyclizine), for which there is some claim for prolonged action.

2. Our laboratory findings indicate that this drug is fairly potent and that its onset of action is moderately delayed.

3. Studies on local inhibition of histamine flares in man and aerosol inhalation in protection against histamine aerosols in the guinea pig indicate that the topical action of this drug is poor.

4. Clinical studies indicate a moderate degree of effectiveness in allergic manifestations, which is lesser in incidence than that obtained with several other of the more potent antihistaminic drugs.

5. The unique feature of this compound is its tendency to prolonged action, producing effects lasting 6 to 15 hours in some instances. The prolongation of action does not reach the duration anticipated by some of the previously reported laboratory findings. The undependability of this prolonged action robs this compound of a good portion of its theoretical advantage.

6. It is postulated that the variability of effectiveness, speed and duration of action may be the result of specific metabolic differences in individuals.

7. The difference between the action of this compound as well as other antihistamines in desensitized and undesensitized patients is analyzed. It is emphasized that in a large percentage of persons the antihistaminic compounds cannot replace desensitization therapy.

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Formation and Dissolution of Bladder Stones

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Dr. Warren H. Cole, Professor of Surgery: Experimental surgery covers a wide area. From research now in progress, we have selected those phases of our work which we feel should be of interest to both surgeon and internist. Dr. Vermeulen will present studies on the formation and dissolution of bladder stones which he has conducted during the past two years.

Dr. Vermeulen: Although much has been written on the etiology of urinary stones, it must be admitted that the essential mechanisms involved in stone formation remain obscure. In an effort to gain a clearer picture of the process, we have studied some of the factors influencing the formation of stones about a foreign body surgically implanted in the bladder of rats. With such an experimental preparation, stone formation is rapid, reasonably constant, and the stones produced are uniform in chemical composition. These considerations and others make it relatively easy to accumulate statistically valid observations in controlled experiments. The rats are kept on a standard diet routinely used in our animal hospital. On it, rats do not develop urinary calculi spontaneously.

I shall describe two of our experiments. In the first, we studied the influence of urinary pH on stone formation which follows implantation of a foreign body in the bladder. The same type of foreign body was used in all rats. It

consisted of a 3 millimeter square of zinc. Before implantation, the foreign bodies were each weighed so that the amount of calculous deposit could be accurately determined by subtraction at the conclusion of the experiment. Groups of animals were placed on three different diets. The first group consisted of controls fed the stock diet. The second group were fed the same diet except that 1.5 per cent ammonium chloride had been added; this group developed a highly acid urine. The third group of rats were given stock diet plus 1.5 per cent sodium bicarbonate so as to alkalinize the urine. The diets were continued for six weeks. The pH of the urine removed from the bladder was determined by means of a pH meter with a micro glass electrode. The average pH found in the different groups were: control — 6.4, acidified — 5.7, and alkalinized — 7.3. At the time of autopsy the fifteen control rats were found to have produced a stone that averaged 41 milligrams in weight. The twenty rats on ammonium chloride developed a negligible deposit upon the foreign body that weighed an average of only 2 milligrams. On the other hand, the twenty-one alkalinized animals had an average of 70 milligrams of stone. It would thus appear that an acid urine will inhibit this type of stone formation. Such a finding is not surprising since our stones are uniformly composed of magnesium ammonium phosphate — a material soluble in acid.

After we had demonstrated the preventive effect of acidification, we sought to determine whether such treatment would dissolve a stone that had already developed. Foreign bodies were therefore implanted into the bladders of a number of rats and stones permitted to develop for a period of six weeks by giving all animals the stock diet. At that time they were operated upon and the stones removed, weighed, and reimplanted into the same rats. Thereafter the animals were divided into two groups. One was continued on the stock diet to serve as controls. The remainder of the rats were given the acid diet with ammonium chloride. The test period lasted four weeks. All animals were then sacrificed. Before the start of the test period the twenty-nine control animals contained a stone that averaged 77 milligrams. At the completion of the experiment they had grown to an average of 155 milligrams. The twenty-six acidified rats, on the other hand, had lost an average of 49 milligrams from a previous average of 89. In fourteen of this group, dissolution was complete with the zinc found bare in the bladder. In only two had the stones increased in weight. It is apparent that an acid urine, if of sufficient degree, can actually dissolve this type of stone. Unfortunately, human stones composed of magnesium ammonium phosphate are ordinarily found in association with urea-splitting infection where the urine is markedly alkaline. In such cases acidification by such substances as ammonium chloride would not ordinarily result in an acid urine.

The second type of experiment I would like to describe was done in an attempt to determine the effect of diuresis upon stone development. Again, zinc implants were used as the stimulus to stone formation. Diuresis was produced in rats by substituting glucose solution for the regular drinking water. Rats apparently enjoy this fluid and in consequence drink large quantities. In spite of the increased intake of glucose, sugar does not appear in the urine. By setting up experiments similar to those where the effect of pH was studied, it was possible to demonstrate that diuresis will likewise prevent stone formation, and in addition, will dissolve stones that had already been allowed to form. However, in this experiment an interesting complication arose. It happened that our colony became infected with an organism of the pasteurella group which was found to be an urea-splitter. Every infected animal was found to have an intensely alkaline urine with a pH above 7.5; and in every one so infected, the stones continued to grow very rapidly despite the enormous urine volume produced by the large fluid intake. Additional experiment established that the increased carboyhydrate intake alone without a corresponding increased fluid intake fails to inhibit stone formation in rats.

These and other observations we have made emphasize the role of a foreign surface in the urinary stream as an important factor in stone formation. No doubt such abnormal surfaces appear from time to time in the lining of the urinary tract clinically, as for instance, Randall plaques on the renal papillae. However, there seems to be insufficient data at the present time

to conclusively establish the importance of such foreign or abnormal surfaces in urolithiasis clinically. One thing seems to be clearly demonstrated by the two experiments cited today — the process of stone formation is a reversible one. There is every reason to hope that practical means of dissolving stones in patients may ultimately be developed.

Dr. Robert M. Kark, Associate Professor of Medicine: In view of the fact that renal colic became extremely common amongst North American soldiers when they moved to a dry tropical climate, I wonder if you have noticed seasonal variations in stone formation?

Dr. Vermeulen: We have not investigated this aspect of the problem. At one time we thought there might be, but we were unable to confirm this initial impression.

Dr. Robert L. Grissom, Associate in Medicine: Vitamin A has been recommended for the prevention of urinary stones. The assumption is that Vitamin A prevents keratinization and thus eliminates a potential nidus for stone formation. Have you studied the influence of Vitamin A on stone formation in rats?

Dr. Vermeulen: No, we have not. It is our belief that Vitamin A deficiency plays little or no role in clinical stone formation. To use it experimentally results in animals with a marked metabolic abnormality. Accordingly, changes so produced bear little resemblance to conditions seen clinically.

Dr. Melvin M. Chertack, Clinical Assistant in Medicine: Have you made quantitative analyses of the urinary uric acid?

Dr. Vermeulen: Rats do not excrete uric acid. However, the calcium, magnesium, and phosphorus excretion has been studied quite extensively in most of our experiments. Upon acidification of the urine the urinary excretion of calcium and phosphorus per day was found to be about double the normal in the experiments described today. The magnesium remained essentially unchanged. Despite the increase in phosphorus, acidification resulted in stone dissolution. In the diuresis experiments, the per diem excretion of calcium, magnesium, and phosphorus remained essentially unchanged. The marked urinary dilution in the animals with diuresis resulted in a marked reduction in the urinary concentration, of course.

Dr. Morton I. Grossman, Associate Professor of Clinical Science: Does the ammonium chloride itself induce diuresis in rats?

Dr. Vermeulen: The animals fed ammonium chloride had approximately a 25 per cent increase in urine volume — not at all comparable with that obtained by drinking glucose solution.

Dr. Russell A. Forrest, Clinical Assistant in Medicine: Is there an electrolytic effect of zinc which induces the stone formation?

Dr. Vermeulen: We have used various metallic and non-metallic foreign bodies. Of those used, all produced stones equally well with exception of paraffin and the polythenes. If we implant paraffin, no stone forms on the paraffin but many independent daughter calculi form in the bladder. Daughter calculi are, as you saw, common with all types of foreign bodies where active stone formation is going on. On the other hand, polythene produces neither a calculus about it nor daughter stones. And if zinc and polythene are implanted simultaneously in the same bladder, a calculus forms on the zinc while the polythene ordinarily remains bare. We can possibly explain the failure of paraffin and polythene as stone nuclei by assuming that a suitable surface must be wettable. Both paraffin and polythene have non-wetting surfaces.

(Editorial Note) Dr. Vermeulen's presentation was part of a Seminar on Experimental Surgery — a panel under the chairmanship of Dr. Warren H. Cole, Professor of Surgery, University of Illinois, College of Medicine. In addition to Dr. Vermeulen, Dr. Tilden C. Everson and Dr. Clarence R. Heidenreich participated in the panel. Dr. Everson presented studies on the adequacy of individual amino-acids in surgical conditions, Dr. Clarence R. Heidenreich an experimental and clinical evaluation of iodo-thiouracil in the treatment of hyperthyroidism.

CASE RECORDS OF THE COOK COUNTY HOSPITAL

KARL MEYER, LEO M. ZIMMERMAN, DEPT. EDITORS

Intra-abdominal Aneurysm

Manuel E. Lichtenstein, M.D., and Harry M. Richter, Jr., M.D.
Chicago

Abdominal aneurysms occur infrequently but they are of sufficient importance to be included in the differential diagnosis of acute, recurrent, progressive or chronic abdominal conditions. Unless the condition is kept in mind as a possible cause for acute abdominal pain its presence may be overlooked and the treatment instituted may be inadequate for the condition or may prove disastrous.

Spontaneous circumscribed arterial aneurysms are the most common variety of the acquired type. It is recorded that 75 per cent of these occur between the ages of thirty and fifty years and ninety per cent of them are syphilitic in origin.[1] They occur more frequently in men but their occurrence must be suspected in women too. In addition to syphilis as an etiological factor in producing the changes in the vessel wall, arteriosclerosis accounts for many of the dissecting aneurysms as well as the saccular variety noted in the abdominal aorta. Less frequently mycotic embolism, periarteritis nodosa and chronic infections such as tuberculous abscesses in contact with large vessels may be causal factors in the development of this condition. Trauma plays a role in initiating the perforation of the vessel at a weakened site in its wall. Straining at work or at stool, sudden exertion or intense physical effort frequently precede the "blow out" but often the weakened vessel wall requires but mild pressure either direct or indirect to lose its continuity. The spontaneous perforation is similar in some respects to the traumatic perforation of a vessel by a penetrating or perforating missile or instrument. In both of these no sac is present immediately and the sudden loss of blood into a circumscribed area results in a pulsating hematoma usually referred to as a false aneurysm. Persistence of this hematoma for a long period of time may result in the development of a fibrous wall and thus simulate the saccular variety. The chief difference lies in the disease of the vessel wall in the spontaneous variety and the usual absence of a diseased wall in the traumatic type.

Aside from the symptoms due to loss of blood and the pain resulting from the vascular per-

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From the Surgical Service of Dr. Manuel E. Lichtenstein.

foration, pressure on adjacent structures may produce serious disabling symptoms. While the danger of recurrent perforation is ever present, compression of veins and lymphatics (distal swelling); nerves (neuritis — paralyses); muscles and fascia (fibrous myositis and sclerosis); and, bones and joints (erosion) cause sequels to the persistence or enlargement of this expanding lesion. The danger of infection of the hema'oma or gangrene of the part supplied by the affected main vessel must also be anticipated.

Superficial aneurysms are easily detected and in the extremities are readily diagnosed by the presence of a pulsating tumor. However, abdominal aneurysms are more obscure. Severe boring pain, radiating along the ureters, the spermatic cord or the round ligament; or acute intestinal cramps followed by the development of "shock" should make one suspicious of the perforation of a large vessel. A pulsating mass with a bruit heard on auscultation noted soon after the onset of the symptoms is confirmation of the nature of the disorder. The pain is usually extremely severe and should arouse suspicion of the vascular lesion.

The case history to be presented illustrates many of the peculiarities of this condition including the difficulty in diagnosis and the hazard of being unprepared to cope with such a lesion when it is not diagnosed. In addition this patient illustrates the care needed for recovery and the principles to be followed in the treatment of this particular type of aneurysm.

Mrs. P. W., age 43, was admitted to a Medical Service at Cook County Hospital April 16, 1948 for study two weeks after an episode of severe acute abdominal pain. About noon on the day of onset of the present condition the patient experienced a cramping pain in the left lower abdominal quadrant. As the pain persisted, at about 8:00 P.M., a laxative was taken. This was followed at about 3:00 A.M. by a bowel movement immediately after which the patient collapsed while in the bath room. On recovery she returned to bed, and for about 24 hours vomited everything she ate or drank. Some relief from pain was obtained by lying on her left side. Gradually the pain subsided. On the advice of her physician she came to the hospital.

The past history as reported by the patient was noncontributory. In 1939 a hysterectomy had been performed at another hospital.



Figure 1 — Retrograde pyelogram—left. Note dilation of ureter and displacement to the right.

Physical examination revealed a slight, colored female who was not acutely ill. B/P 145/105. T 99⁴ P 94. Pupils were equal and reacted to light. The essential finding was a hard, fixed, nodular mass filling the left lower two thirds of the abdomen and lumbar region. No pulsation was noted, although a bruit was heard over the entire mass. The femoral artery pulsations were normal. Vaginal and rectal examinations disclosed the mass not connected to the pelvic viscera. At cystoscopy the left ureter was catheterized and films taken. Figure 1. There was dilatation and displacement of the left ureter beyond the midline just above the pelvic brim. Urine examination showed a trace of albumen, s.g. 1.022, no sugar, no cells or casts. The blood examination showed Hb 55% W.B.C. 7,700 PMN 81% EOS 5% Lymphs 12% Monos 2%. The Kahn test was inconclusive but the Wasserman was negative. An EKG showed left axis deviation with a slightly prolonged QR interval.

The diagnosis arrived at was renal or retro-

peritoneal tumor. The patient was transferred to the Urologic Service and extraperitoneal exploration was contemplated. A blood transfusion (500 c.c.) was given on May 14, 1948 and another (500 c.c.) was given on May 15, 1948, the day of surgery. Through the left lower oblique incision — a mass of blood clot was encountered which when disturbed resulted in profuse bleeding. The region was immediately packed with two rolls of gauze each 5 yards in length. Postoperatively another transfusion of 500 c.c. of blood was given. It was obvious now that a large vessel was involved and the mass constituted a hematoma. On May 16, 1948 another 500 c.c. of blood were administered. Thus 2000 c.c. of blood had been administered in this three day period.

The patient was now transferred to a General Surgery service and prepared for abdominal exploration. Following the administration of 500 cc of whole blood on each of three consecutive days the Hb rose to 86 per cent. Under ether — oxygen anesthesia, the aorta above the bifurcation was exposed and compressed, the packs previously inserted were removed and a large laminated hematoma was evacuated after the posterior parietal peritoneum was incised. Careful exploration now disclosed a perforation in the internal iliac-artery within a few millimeters of the bifurcation of the left common iliac-artery. This perforation was slightly irregular and had a long axis approximately 5 mm in length parallel to the vessel. This opening was sutured with 0000 silk and hemostasis was obtained. The ureter was blood stained but there were no other apparent abnormalities. On the day following surgery another 500 cc. of blood were administered. The post operative course was uneventful and the patient was discharged on the sixteenth post operative day. She returned to the Outpatient department for observation. A pyelogram made several months following the operation (figure 2) showed the ureter to be in a normal position with the dilatation markedly relieved.

It was noted previously that in 1939 a hysterectomy had been done at another hospital. A review of the record from this hospital disclosed that the patient had received Bismuth and Mapharsen therapy for latent syphilis for a period of three years starting in 1942. The



Figure 2 — Retrograde pyelogram left 4 mo. postoperative. Compare with Figure 1. Note return to normal position.

Discussion.—The purpose of this presentation is to emphasize the need for keeping in mind aneurysms as a cause for abdominal pain and retroperitoneal tumor. The history may be inconclusive or lack a clear cut description for any clinical entity. The history of syphilis obtained after the operation was of no help in marking a diagnosis but this too emphasizes the importance of a complete history. A sudden anemia without external loss of blood or the development of shock should suggest internal bleeding and loss of blood volume that may follow perforation of a large vessel. In the present instance the failure to appreciate more fully the bruit heard on physical examination over the mass in the abdomen helped to miss the correct diagnosis. This is not said in criticism for the bruit may have been transmitted to a mass overlying an intact large vessel. However, it should arouse suspicion at least that a vascular defect is present.

The advantages of a blood bank to make available large quantities of compatable blood to restore a blood loss adequately and permit surgery

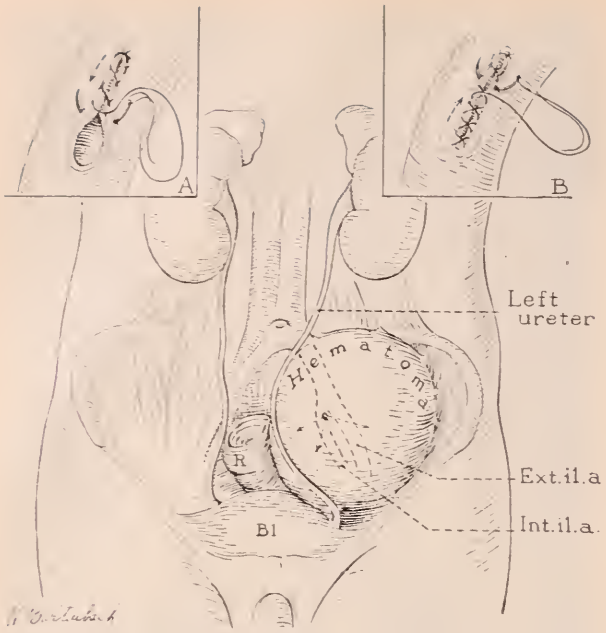


Figure 3

to be undertaken with a slight risk is well illustrated here. It must be remembered that the hematoma represents a volume of blood twice its size. When clotting occurs and the liquid portion of the blood is absorbed the formed elements and fibrin mesh represent only 50 per cent of the total volume of blood lost. The continued enlargement of the mass accounts for the loss in blood volume and marked secondary anemia found is this condition.

In the surgical management of this condition the type of procedure undertaken to control hemorrhage depends on several factors. Arteriosclerosis may prohibit successful vessel suture or even ligation. However, in the present instance vessel suture was possible and was done. (figure 3) Here again vessel suture was mandatory since ligation for control of bleeding would have required ligation of the common and external iliac arteries as well as the internal iliac artery.

Provisional control of the flow of blood during the reparative procedure by compression of the aorta is of course a primary essential and emphasizes the need for being above the vascular defect before undertaking exposure of the bleeding point. It is this fact alone which emphasizes the need for keeping aneurysms in mind for failure to heed this principle may lead to disastrous hemorrhage in an awkward situation. day following surgery another 500 cc of blood

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CASE REPORTS



Ovarian Pregnancy

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Ovarian pregnancy is a very uncommon condition whose existance was for many years questioned. However, Stux and Gertsel proved that ovarian nidation does occur. Novak[1] has reported fifty cases collected from the literature and other acceptable cases have since been added. Dale[2] places the incidence as being about .29% of all ectopic pregnancies. In the last nine year period, records of two hospitals show 173 ectopic pregnancies came to operation[3] and in none of these, except the case here reported, was the pregnancy ovarian.

Spiegelberg, modified by Norris[4], requires the following criteria for acceptance as a true ovarian pregnancy. 1) That the tube and fimbria ovaria must be intact and the former clearly separated from the ovary. 2) That the gestation sac definitely occupy the normal position of the ovary. 3) That the sac be connected with the uterus by the ovarian ligament. 4) That unquestionable ovarian tissue be demonstrable in the walls of the sac.

A pregnancy that meets these requirements is herewith reported.

CASE REPORT

Mrs. L. H., age 28, white, had been married three years. During this time she had never become pregnant. Menarch was at the age of fourteen and she could never recollect any irregularities from that time up to and including a period which had occurred thirty-four days before her entrance to the hospital. Catamenia had been twenty-eight to thirty days apart, had lasted five days, and was always of normal volume.

On the sixth day beyond the expected date of the period, the patient felt the urge for a bowel movement. Following evacuation, a sudden, severe pain was felt in the pelvis, most marked on the left side. She felt weak, sweat profusely and was nauseated but did not vomit. She became semi-stuperous.

Examination showed a well developed female, of about the age stated. She was pallid, cold and covered with fine perspiration. The pulse was rapid and weak but regular. The abdomen was tense and of normal contour. No vaginal bleeding was present. There was tenderness in all directions, vaginally and rectally; and thru both approaches, a boggy, exquisitely tender mass could be felt on the left. The temperature

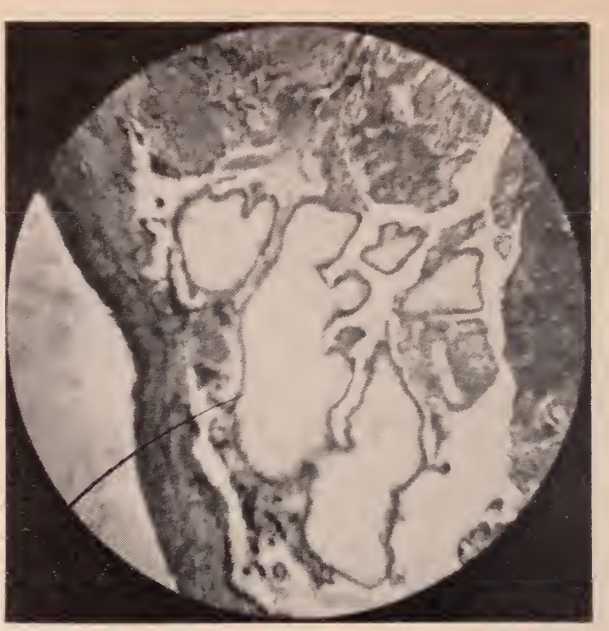
on admission to the hospital was 98 degrees F. The hemoglobin was 84% (Gms. 14.25) and the blood fell into Group B Rh Neg. The erythrocytes totaled 4,200,000 and the leucocytes 5,550.

Because of the short time past due for a period, absence of any vaginal bleeding, evidence of intra-abdominal bleeding, and presence of a mass, a working diagnosis of ruptured ovarian cyst was made. Ruptured ectopic pregnancy and twisted ovarian cyst were also considered.

Before compatible blood of a Rh Neg. nature could be obtained, the patient's condition began to improve. The pulse dropped to 90 per minute and became stronger; her color improved. The profuse sweating stopped. She had received a quarter grain of morphine as soon as seen and plasma had been started on entrance to the hospital. It was decided to operate at once as proper blood could not be obtained for several hours. Plasma was continued during and after the operation. 500 CC of whole blood was given the day after operation.

Operation. — Under cyclo-propane-curare anesthesia, a suprapubic, verticle midline incision was made. The peritoneum appeared reddish-purple and, when opened, dark red liquid blood was present. An amount of blood sufficient to permit visualization of the pathology was removed by aspiration and sponge.

The left ovary with its pathology was about the size of a small lemon. (7x6x5 Cm.). Three cystic formations were seen, the larger of which (about 3x2.5x2 Cm.) had a rent approximately 1.5 Cm. in length in its wall and from this there was a flow of blood. The other two cysts were intact. The left and right tubes and the right ovary were grossly normal. The left ovary had a well developed utero-ovarian ligament and was well separated from its corresponding tube. An eight inch clamp was placed on the pedicle without disturbing the normal tube. The ovary was removed, its pedicle was transfixed and ligated and the stump was turned in to the broad ligament. The abdomen was closed without drainage. The patient left the operating room



Section through ovarian pregnancy.

in good condition and made an uneventful recovery.

On March 12, 1949, the leucocytes totaled 5,550, the erythrocytes 3,500,000 and the hemoglobin was 11.9 (70%) with a color index of 1.0.

Pathological Report. — The ovary was the site of three cysts, the largest of which was ruptured; this was the source of the bleeding. The medium sized, unruptured cyst was as follows: —

"Section of solid hemorrhagic cyst reveals the lumen to be filled with RBC's, fibrin, leucocytes, many well-preserved chorionic villi and trophoblasts. Portion of the wall consists of edematous ovarian connective tissue stroma with congested blood vessels and a corpus albican. Portion of the surface of the cyst consists of fibrin, RBC's and leucocytes. Diagnosis—ovarian pregnancy."

COMMENT

A case of ovarian pregnancy is reported. It is clinically indistinguishable from other ectopic pregnancies and, may occur in the presense of other pelvic pathology.

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PATHOLOGY CONFERENCES

EDWIN F. HIRSCH, DEPARTMENT EDITOR



PRESENTATION OF TWO CASES

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RETICULUM CELL LYMPHOSARCOMA

This white male aged 24 years entered St. Luke's Hospital in the care of Doctor Harold Steinberg for the ninth time on January 27, 1950, and died on February 21, 1950. His first admission in May 1946 was for ligation of varicose veins of the right leg. He came again in January 1948 when a diagnosis of reticulum cell lymphosarcoma was made by biopsy examination of cervical lymph nodes. The complaints then were malaise of three to four months duration, swelling of the left side of the neck for six weeks, a ten pound loss of weight in four weeks and a fever of 102 to 103°F. for one week. Other complaints were dyspnea on exertion and pain over the upper part of the sternum with deep inspiration. On the left side of the neck was a non-tender mass about the size of an orange. Just below this in the supraclavicular region was a similar, slightly smaller mass. In the right axilla was a tender pea-sized lymph node. The liver edge was palpable below the costal margin, the edge of the spleen was palpable and tender. X-rays of the chest and abdomen were negative. The blood had 4,900,000 erythrocytes, 5,900 leucocytes per cmm. and 14.1 grams percent of hemoglobin. The differential count was 50 lymphocytes, 20 monocytes, 24 neutrophils, 1 eosinophil and 5 neutrophilic band cells per 100 leucocytes. The Kahn test of the blood was negative. The patient received roentgen ray therapy and was discharged on the 31st hospital day. He was readmitted in January 1949 because of chills and fever for a month and vomiting which had been present for two days. He complained of pain in the chest on swallowing and coughing. The vomiting was precipitated by coughing episodes. He also complained of headache and slight dizziness. The significant physical findings at this time were palpable spleen, a fever of 104°F., pulse 85 and respirations 20 per minute. The blood had 4,110,000 erythrocytes and 1,300 leukocytes and 11.7 grams percent hemoglobin. The differential count of the leukocytes demonstrated 29 lymphocytes, 27 monocytes, 19 neutrophil polymuclears and 25

band forms. The blood sedimentation rate was 57 mms. in one hour. The patient received 500 cc of whole blood and was discharged on the ninth hospital day. He was readmitted again six weeks later for observation and symptomatic treatment. One week before admission he had had chills and fever. The leukocyte count was 3,750 per cmm. The patient was given two 500 cc units of whole blood by transfusion and was discharged on the fifth hospital day. He was admitted for the sixth time in February 1949, started on nitrogen mustard therapy, and received two units of blood by transfusion. His seventh admission was in August for nitrogen mustard therapy and transfusion. Roentgen films of the chest revealed a mediastinal tumor mass. The physical and laboratory findings were similar to those on previous admissions. His eighth admission, again for nitrogen mustard therapy and transfusion, was in December 1949. During the interval he had had pneumonia for about a week. A week later he again had chills and fever, a severe productive cough, marked weakness, dyspnea on exertion and loss of appetite.

He was a chronically ill, well nourished and well developed white male. The skin was pale, hot and dry. A few small palpable lymph nodes were in the neck. His blood pressure was 106/58 mm of Hg. and the temperature was 103°F. The respirations were 40 and the pulse 100 per minute. The liver edge was questionably palpable. The spleen was not palpated. The physical examination otherwise was negative. The erythrocyte count was 2.33 million and the leucocyte count 1,100 per cmm; the hemoglobin was 6.9 grams percent and there were 10 lymphocytes, 1 monocyte, 19 neutrophils and 19 band forms and 1 abnormal lymphocyte per 50 leukocytes counted. The urine was negative. The blood sedimentation rate was



Figure 1. Photograph illustrating petechial hemorrhages in the lining of the superior vena cava. The serous surfaces had similar hemorrhages.

Figure 2. Photograph illustrating the extensive hemorrhages in the peripelvic tissues of the kidneys.

103 mms in one hour. Roentgen films revealed the disappearance of the mediastinal tumor.

While in the hospital his temperature ranged between 103 to 106°F., returning to about normal daily, but later rising to only 100 or 102°F. daily. The patient was given several 500 units of whole blood and nitrogen mustard therapy. He became progressively worse. On the eighth hospital day a biopsy of the sternum was obtained and the diagnosis of fibroplastic tissue replacement (lymphosarcoma) of the sternum was made. In spite of many blood transfusions he remained markedly anemic and had a marked leukopenia. He died on the 21st hospital day with the clinical diagnosis of reticulum cell lymphosarcoma.

The essentials of the anatomic diagnosis of the necropsy are:

Systemic lymphosarcoma;

Marked hyperplasia, hyperemia and subcapsular petechial hemorrhages of the spleen;

Focal lymphosarcoma tissue replacement of the bone marrow of the sternum, the ribs and lumbar vertebrae;

Small hemorrhages and hyperemia of the lymph nodes;

Multiple petechial hemorrhages of the serous tissues;

Extensive hemorrhages of the lining of the right renal pelvis and perirenal pelvic fat tissues;

Marked nephrosis and subcapsular hemorrhages of the kidneys.

The body of this young adult white man weighed 188 pounds. The necropsy was limited to the trunk. Over the sacrum was a decubitus ulcer of the skin 6 cms. in dia. The left side of the neck had an old surgical biopsy scar, and over the manubrium of the sternum, a recent biopsy wound. The lymph nodes in the neck, axillae and elsewhere were small. Each pleural space had 50 to 100 cc of hemorrhagic fluid. The pleural, pericardial and serous surfaces had myraids of petechial and larger hemorrhages. (Figure 1) The heart weighed 400 grams. There were no changes of the valve structures or myocardium. Beneath the endocardium were petechial hemorrhages. The kidneys weighed 235 and 240 grams respectively. The subcapsular surfaces were smooth. The essential changes of the kidneys were parenchymatous, but in the renal pelves and peripelvic fat were



Figure 3. Photograph of a surface made by cutting the spleen, illustrating the hyperplasia and hyperemia.

extensive petechial and larger hemorrhages. (Figure 2) The biliary lymph nodes were slightly enlarged, grey and hemorrhagic. The liver weighed 2800 grams. The capsule was smooth and the surfaces made by cutting had tan brown and red brown lobular markings. The spleen weighed 780 grams. Under the slate grey capsule were many petechial hemorrhages. Surfaces made by cutting were firm, dark red and had a fine filigree of trabecular tissues. (Figure 3) The pulp tissues also had hemorrhages. The grey lining of the stomach and bowel had multiple petechial hemorrhages. The edematous lungs had hemorrhages of the pleura and deeper portions. The spongy portions of the sternum, ribs, and vertebrae had focal deposits of grey tissues but without destruction of the bone trabeculae. (Figure 4)

Although the lymph nodes generally were not greatly enlarged their histologic structure was markedly changed. The lymphoid tissues were replaced by hyaline scars or fibrillar tissues. In the interstices of the fibrillar stroma and about the scars were large protoplasmic reticulum cells. Similar deposits replaced the lymphoid tissues

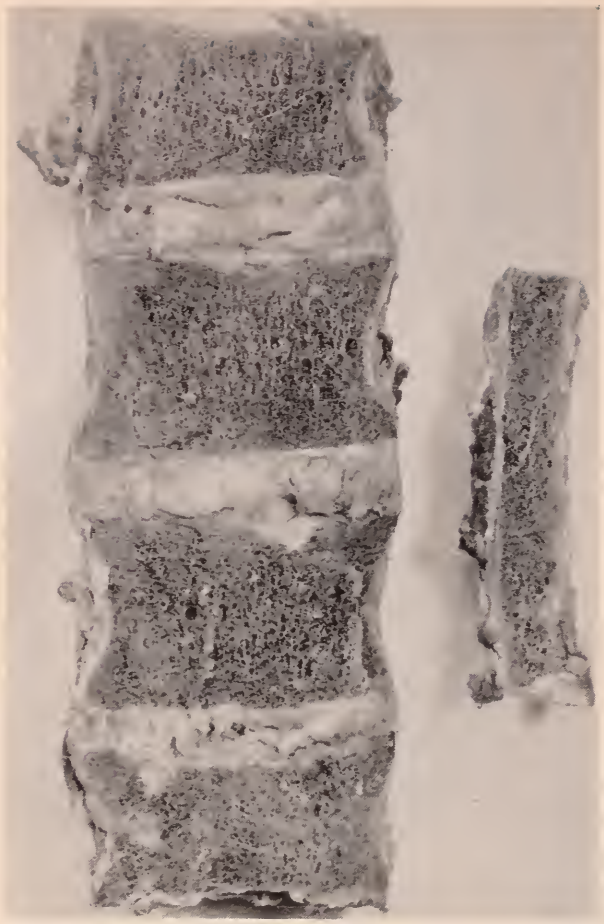


Figure 4. Photograph of surfaces made by cutting lumbar vertebrae and sternum to illustrate the absence of bone destruction and the grey tissue infiltration of the marrow spaces.

of the Malpighian corpuscles of the spleen. The splenic pulp had dilated blood sinuses and the stroma had also large mononuclear phagocytes laden with brown blood pigment. Along the portal systems of the liver were small focal hyaline scars and reticulum cells. Remarkable changes had occurred in the bone marrow. Practically all of the marrow tissues were replaced by large protoplasmic reticulum cells with a little fibrillar stroma. (Figure 5) but without erosion of the bone trabeculae. In brief, the blood forming tissues of the bones had been replaced by large reticulum cells. These tissues, if seen only in a biopsy of the bone, and without the benefit of previous tissue examinations, would present a real problem in interpretation and diagnosis. The initial biopsy of large cervical lymph nodes demonstrated a diffuse replacement of the lymph node tissues by large mononuclear cells. morphologically reticulum cells, some forms large and with one or more lobed nuclei. Among the reticulum cells were some in mitosis. These cell elements provided the basis for the initial diagnosis.

COMMENT

The illness of this patient extended about two years, initially manifested by fever and a sudden enlargement of cervical lymph nodes. Radiation therapy of 10,000 units was given during the first stages of the disease. This amount was considered to be small. The enlarged glands re-

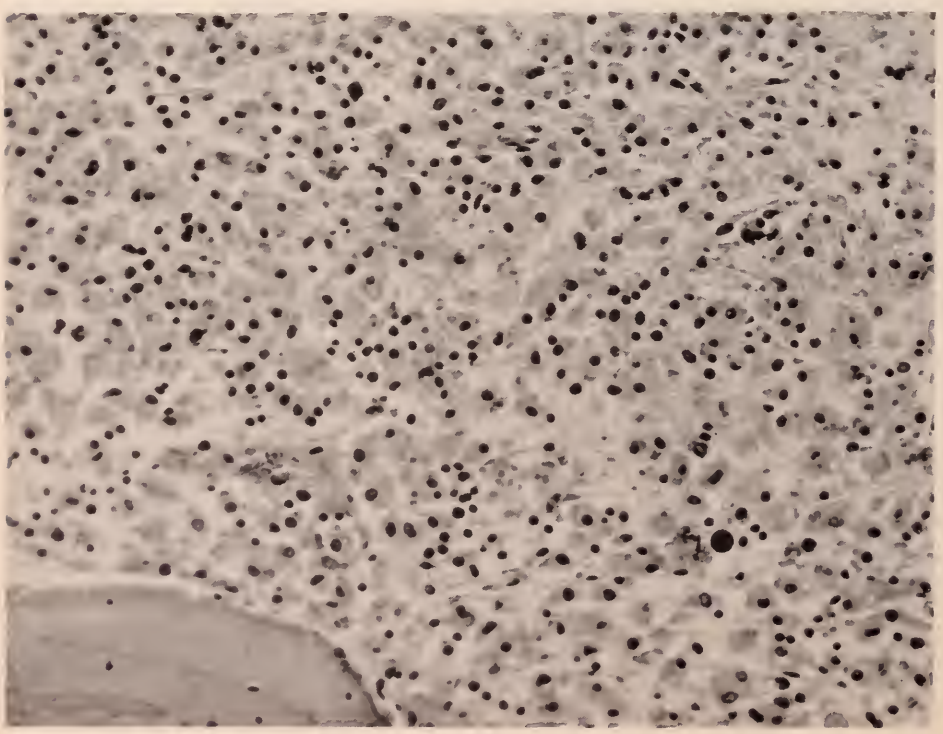


Figure 5. Photomicrograph illustrating the reticulum lymphosarcoma invasion of the bone marrow. X198

gressed in size and remained so. Then the illness manifested itself by attacks of fever ranging to 104 to 105°F. and lasting for several days during which the patient had general debility. The fever would disappear for a few days, appetite would return and the patient would feel reasonably well. Again the fever returned with the associated general symptoms. Five or six injections of nitrogen mustard controlled the bouts of fever and the patient seemed well for two or three months. However, the blood became severely anemic and leukopenic, and blood transfusions were used. These supportive measures gradually failed. Histological examinations of the bone tissue obtained after death demonstrated that the reticulum cell sarcoma had replaced large portions of the hematopoietic tissues of the marrow. The results of this finally contributed largely to his death.

DIABETES MELLITUS WITH NEPHRITIS

This 38 year old white single male chemist entered St. Luke's Hospital on November 23, 1949 to the service of Doctor Chester Coggeshall and died on December 7, 1949.

He was admitted with a history of diabetes for 22 years; swelling of his face and extremities, dyspnea and orthopnea for two weeks and more recently oliguria. His diabetes had been treated by diet and insulin, but the patient thought that he was better able to regulate these himself and tended to fix his own routine. He had had one episode of acidosis about ten years before admission and hypertension for at least two years. In the two weeks preceding admission he had gained 20 to 30 pounds in weight.

When admitted his temperature was 100°F., pulse 120 per minute, respirations 25 per minute, and his blood pressure 180/120 mms Hg. He had generalized edema of the body, dullness to percussion in the base of both lungs, nearly absent breath sounds and coarse moist inspiratory rales above the regions of dullness. The heart was enlarged to the left of the midline, had a sinus tachycardia but no murmurs. The liver was enlarged but its lower border was not palpable. The red blood cell count was 3,400,000 and the leukocytes 9,900 per cmm. The hemoglobin was 9.7 grams percent. The acid urine had a specific gravity of 1.015, 200 mgms percent of albumin, and many granular casts. The blood urea nitrogen was 53 mgms, the non-protein nitrogen 90 mgms, the creatinine 6.6 mgms, the cholesterol 226 mgms, the phosphorus 4.48 mgms percent and the carbon dioxide combining power of the plasma was 44.7 volumes percent. The serum calcium was 8.7 mgms percent, the total protein was 4.50 grams percent with 1.97 grams percent of albumin and 2.53 grams percent of globulin. The sedimentation rate was 40 mm per hour. Serum sodium and potassium values were within normal limits. The blood sugar levels were 144, 220, 478 and 516 mgms percent.

This patient at the time of admission was in uremia with marked restlessness, hyperpnoea and acidosis. The edema of the body including the lungs was marked. Symptomatic treatment for the edema failed. The dyspnoea and edema increased each day and the amount of urine obtained by catheterization was 200 cc on one occasion and 300 cc on another. He died with the clinical diagnosis of diabetes mellitus and Kimmelstiel — Wilson's disease.

The essentials of the anatomic diagnosis (complete necropsy) are:

Marked atrophy and fat replacement of the pancreas—diabetes mellitus;
Nephrosclerosis of the kidneys;
Anasarca;
Ascites;
Bilateral hydrothorax;
Fibrous and fatty changes of the lining of the aorta, its large branches, and of the coronary arteries of the heart;
Hyperemia and edema of the lungs.

The body of this white adult male, weighing 250 pounds, had a marked generalized anasarca; the peritoneum and the right and left pleural spaces each contained two liters of clear yellow fluid. The hypertrophied heart had no vascular or myocardial changes and weighed 370 grams. Both lungs were hyperemic and edematous. The capsule of the kidneys stripped with resistance from a granular red mottled with grey surface. The cortex of brown mottled with grey tissues had a width of 7 mms.; the red-brown pyramid tissues had a height of 2.2 cms. The markings of the cortex were gone, and the glomerular tufts were not visible. The kidneys weighed 140 and 160 grams. Histologically the renal tissues had marked changes of the glomeruli. Many were reduced to rounded hyaline masses, others had

markedly thickened glomerular tufts with hyalinization, and still others had cellular tufts but with thickening of Bowman's capsules. These glomerular changes were accompanied by retrogressive changes and atrophy of the associated tubule structures with stroma tissue replacement. Other tubules had swollen epithelial lining cells. There was a marked hyperemia. The markedly atrophic, tan brown pancreas weighed 90 grams, had a lobular pattern, but the lobules were indefinite and small. The head portion had more lobulated tissues than the body and tail. Histologically there was a marked fat and fibrous tissue replacement of the pancreas tissues. A striking feature was the tremendous size of the islets. Some were five or six times the normal in size and their cells, with pale nuclei and cytoplasm, also were larger than usual. The acinar elements, while sparce, had no significant changes. The liver weighed 2500 grams, had a moderate passive hyperemia, a marked cloudy swelling and small focal regions of fatty changes.

COMMENT

The severe diabetes mellitus of long duration in this patient gradually merged into an equally serious disturbance of renal function and associated hypertension. According to the clinical history this patient had great difficulty in controlling the diabetes with insulin preparations and believed that he could manage himself as an individual rather than through a fixed regime. Trained as a chemist he had informed himself in detail about the disease and himself made many sugar determinations of his blood. When the nephritis became serious and his urine had large quantities of albumin, he managed successfully to live efficiently with his handicaps and to find pleasure in cultural interests. Eventually, as the necropsy demonstrated, glomerular sclerosis with depressed renal function reached a level incompatible with life.

EGYPTIAN DRUG PRODUCES GOOD RESULTS IN HEART DISEASE

A drug known as visammin and also as khellin, obtained from the fruit of a plant which grows in Egypt, Arabia and Eastern Mediterranean countries, produces good results in angina pectoris, a group of Chicago doctors report.

Drs. R. H. Roseman, A. P. Fishman, S. R. Kaplan, H. G. Levin and L. N. Katz of the Medical Research Institute, Michael Reese Hospital, describe their study of the drug in an article in the May 13 Journal of the American Medical Association.

"Improvement of the cardiac status was definite in 11 of the 14 cases of agina pectoris," the doctors say. "Moderate improvement occurred in another case, but in the remaining two no benefit was obtained. In four instances the improvement persisted for a time after administration of the drug had been discontinued. This is attributable to the cumulative effects of the drug."

Nausea and insomnia believed to be caused by the drug occurred in five of these 14 patients. Response of the heart condition to visammin is described as "dramatic and unequivocal" in some cases.

A typical example of an excellent result was seen in the case of a 66 year old man with long-standing severe angina pectoris (pain in the chest over the heart area, usually associated with effort).

His response to visammin was rapid and progressive. Not only was he spared surgical operation to relieve the anginal pain, but he was able to extend his activities. The number of glyceryl trinitrate tablets he required daily dropped precipitously. His appetite improved, his despairing attitude resolved and he became alert.

In eight patients with enlargement of the right side of the heart or increased stress placed upon the right side of the heart by lung disease, striking improvement was noted following administration of visammin.

Single injections of visammin resulted in significant improvement in nine of 21 patients with acute bronchial asthma. The response was prompt, occurring within five or 10 minutes, and was often dramatic but usually short-lived.

NEWS OF THE STATE



BOND

Emeritus Membership.—Dr. Katherine B. Luzader was presented with an emeritus membership in the Illinois State Medical Society at a meeting of the Bond County Medical Society in April. The emeritus membership is in recognition of at least thirty-five years of membership in the Illinois State Medical Society. A feature of the meeting was the showing of motion pictures by Dr. Max Fraenkel of his recent trip to Sun Valley, Idaho.

COOK

Liverpool Physician Gives Bacon Lecture.—Dr. H. L. Sheehan, professor of pathology, University of Liverpool, England, delivered the Charles Sumner Bacon Lecture for 1949-1950 at the University of Illinois College of Medicine, May 3, on "The Pathology of Toxaemias of Pregnancy."

Course in Cerebral Palsy.—A two weeks intensive personal course in cerebral palsy is to be given by Dr. M. A. Perlstein at the Cook County Graduate School of Medicine, from July 31 to August 12, 1950. Registration for the course will be by direct application to Mr. James F. Askin, registrar of the Medical School.

"Physical and Emotional Factors in Marriage".—The medical staff and chaplain's department of Augustana Hospital opened a clinic on "Physical and Emotional Factors in Marriage", April 10. The series will be given at 7:30 p.m. on the second Monday of each month and will continue over a year's time. Actually the clinics will not be carried on as a series but each will be completed in one evening, the period to be spent in lectures succeeded by forum discussion. The meetings are opened only to couples or individuals to be married within the month and to those already married. There is no admission or registration charge. Dr. William H. Browne, head of the department of obstetrics and gynecology at Augustana Hospital, is in charge of the clinics and gave the opening lecture.

New Lectureship Honors Maurice Oppenheim.—Dr. Irvine H. Page, director of research of the Cleveland Clinic Foundation, Cleveland, delivered the first annual Maurice Oppenheim Memorial Lecture, May 5, at Mount Sinai Hospital, on "Arterial Hypertension: Its Nature and Treatment."

The memorial lectureship was established in honor of the late Dr. Maurice Oppenheim, head of the department of dermatology and syphilology at the Chicago Medical School. It was established by the Alpha Rho Chapter of Phi Lambda Kappa Fraternity of the school.

University News.—Two subsidiary scholarships, amounting to $10,000 each, have been given to the Chicago Medical School. One is in honor of Mrs. Mary Feinberg, Allentown, Pa. and Miami Beach, Fla. This has been given by Mr. Jacob Feinberg and family. The other, given by an anonymous donor of Miami Beach, Fla., is in honor of Drs. Milton S. Saslow, Howard A. Engle and Morris Blau, all of that city.

Coulter Collection Presented to Northwestern.—One of the country's finest collection of books on physical medicine has been presented to the Northwestern University Medical School, it was announced recently by Dean Richard H. Young.

The collection was owned by Dr. John Stanley Coulter, former chairman of the Medical School's department of physical medicine, who died in December, 1949.

Dr. Coulter was graduated from the University of Pennsylvania in 1909. In 1926 he was appointed assistant professor in physical medicine in Northwestern's Medical School, rising to a full professorship and chairman of the department in 1943.

The gift will be placed in the Archibald Church Library, one of the five largest medical libraries in the country. At the present time, it contains more than 112,000 volumes as well as 1,000 periodicals.

Society News.—The Chicago Rheumatism Society, was addressed April 26 by Dr. William S. Hoffman, director of biochemistry, Hektoen Institute and Cook County Hospital. His subject was "Biochemical Aspects of Salicylate Therapy."

Summer Camp for Diabetic Children.—A Summer Camp for Diabetic Children will be conducted for the second season under the auspices of The Chicago Diabetes Association, Inc. Because the first season was so successful, a larger group of campers of wider age ranges will be accommodated this year at Holiday Home, Lake Geneva, Wisconsin, from August 8 to August 29. In addition to the regular personnel of the camp, there will be a staff of dietitians and resident physicians, trained in the care of diabetic children, furnished by The Chicago Diabetes Association. Boys and girls, ages eight to fourteen years inclusive, will be accepted at a fee of $120 (which covers three weeks camping and transportation from Chicago). Fee reductions may be arranged according to circumstances. Physicians are requested to notify parents of diabetic children and to supply the names of children who would like to attend. Correspondence should be addressed to The Chicago Diabetes Association, 950 East 59th Street, Chicago 37. Limited capacity requires prompt application. Officers of The Chicago Diabetes Association are Dr. Rollin T. Woodyatt, honorary president; Dr. Authur R. Colwell, president; Dr. Samuel Soskin, first vice-president; Dr. Ford K. Hick, second vice-president; Dr. Henry T. Ricketts, secretary and Paul A. Dice, treasurer. Dr. Alvah L. Newcomb is chairman of the Summer Camp Committee.

St. Luke's Observes Nursing Anniversary.—The sixty-fifth anniversary of the establishment of St. Luke's Hospital School of Nursing was observed May 26 at the John B. Murphy Memorial auditorium with Mrs. Floyd Millis, president of St. Luke's Hospital School of Nursing Alumnae Association, presiding. Speakers were Dr. George K. Fenn, associate professor of medicine, Northwestern University Medical School, and attending physician and director of electrocardiograph laboratory at St. Luke's, who extended the greetings from the medical staff to the graduates of the hospital, and Nellie X. Hawkinson, A. M., chairman, nursing education, division of social sciences, University of Chicago, who spoke on "Education for Nursing." The program included a historical tableaux of the old and new uniforms used at St. Luke's and a demonstration on some of the important current nursing procedures. St. Luke's Hospital School of Nursing is one of the oldest in the midwest. Since 1885, with a class of six students, it has through the years graduated over twenty-four hundred nurses.

Winners in Annual Competition by Internes and Residents.—Harry A. Oberhelman, Jr., resident in surgery, University of Chicago, won first prize of $150 in the Annual Competition by Internes and Residents of Chicago Hospitals, sponsored by the North Shore Branch of the Chicago Medical Society. The title of his paper was "The Relation of Gastric Secretion to the Cause of Death in Pyloric Obstruction." Jason Ned Smith, Jr., intern at St. Luke's Hospital, placed second in the competition, winning $100 for his paper on "Clubbing of Fingers and Hypertrophic Osteoarthropathy." The third prize was $50. Tieing for third place were J. Sterling Martin, resident in medicine, Passavant Hospital, for his work on "Studies of Bone Marrow Function With the Use of Radioactive Phosphorus"; Richard L. Merkel, resident in obstetrics and gynecology, Ravenswood Hospital, for his presentation titled "A Comprehensive Study of Chemical Tests for the Early Diagnosis of Pregnancy, Including a New colorimetric Determination" and Mary R. Richards, assistant resident, Childrens Memorial Hospital, "Pre and Post-operative Growth Patterns in Congenital Heart Disease as Shown by the Wetzel Grid."

Society of Physical Medicine and Rehabilitation Formed.—A representative group of persons interested in physical medicine and rehabilitation gathered together April 19 to organize the Chicago Society of Physical Medicine and Rehabilitation. Dr. Louis B. Newman, chief, physical medicine rehabilitation, VA Hospital, Hines, was elected president; Dr. Charles O. Molander, director, department of physical medicine, Michael Reese Hospital, vice president and Dr. Arthur A. Rodriquez, assistant head of the department of physical medicine and rehabilitation, Research and Educational Hospitals and consulting physiatrist, Illinois Central Hospital, was elected secretary-treasurer. These officers are diplomates of the American Board of Physical Medicine and Rehabilitation. Drs. H. Worley Kendell, Disraeli Kobak and James Case were elected to the Board of Trustees to serve for a period of three, two and one year, respectively. The May 19 meeting was addressed by Dr. Richard Kovacs, New York City, secretary of the American Congress of Physical Medicine Rehabilitation in Organization Work."

CRAWFORD

Society Election.—Dr. A. L. Lowe, Jr. was elected president of the Crawford County Medical Society at a recent meeting. Other officers are Dr. Samuel S. Allen, vice president; Dr. John W. Long, secretary-treasurer; and Drs. G. H. Henry, L. R. Illyes and L. B. Highsmith, censors. Dr. John W. Long, Robinson, was chosen delegate to the State meeting and Dr. Roy Griffy, Oblong, alternate. Dr. Edward Greer, Robinson, spoke at the meeting.

FULTON

Society News.—Dr. Walter C. Humbert, assistant medical director, American Red Cross, addressed the Fulton County Medical Society, April 21, on "Proposed Red Cross Blood Centers" and Dr. E. P. Coleman on "The Acute Abdomen."

HENRY

Personal.—Dr. C. L. Watters, Geneseo, was chosen president of the local Rotary Club, to be installed in July.

KNOX

Society News.—The Knox County Medical Society was recently addressed by Father Michael I. English, S. J., Regent, Stritch School of Medicine at Loyola University, on "Medical Education Under Private Auspices."

LEE

Personal.—Dr. Charles K. Bush has been appointed superintendent of the Dixon State Hospital where he has been serving since March 1949 as assistant superintendent and then acting superintendent when Dr. Louis Belinson was transferred to the Jacksonville State Hospital.

MACON

Society News.—The Macon County Medical Society was addressed April 18 by Dr. Justin J. Cordonnier, professor of urology, Washington University School of Medicine. His subject was "Carcinoma of the Bladder."

MADISON

Society News.—"Intestinal Obstruction" was the subject discussed by Dr. R. J. Noer, Detroit, assistant professor of surgery, Wayne University College of Medicine, before the Madison County Medical Society, at St. John's Methodist Church, Edwardsville, May 4.

MORGAN

Society News.—The Morgan County Medical Society was the guest of Dr. Louis K. Belinson, superintendent of the Jacksonville State Hospital, at the hospital May 11. Following the dinner a lecture on "Electroencephalography" was presented.

PIKE

Fiftieth Anniversary Celebration.—The golden anniversary of the organization of the Pike-Calhoun County Medical Society was held April 13 at Orr Memorial Hall in Pittsfield. Dr. Sam L. Miller, Hardin, president of the society, presided at the meeting. Dr. Ernest B. Howard, Chicago, assistant secretary, American Medical Association, spoke on the activities of the Association. Dr. E. B. Montgomery of Quincy, ninety-three years of age, said to be the oldest practicing physician in the State of Illinois, also spoke. Other speakers at the meeting were Dr. Walter Stevenson, Quincy, then president of the Illinois State Medical Society, Dr. Harold M. Camp, Monmouth, Secretary, Illinois State Medical Society, and Dr. Robert Malony, Pittsfield.

ROCK ISLAND

Society News.—Dr. Peter Rosi, Chicago, assistant professor of surgery, Northwestern University Medical School, discussed "How Radical Should a Resection be for Cancer of the Colon?" before the Rock Island County Medical Society at its meeting May 9.

SALINE

Society News.—Dr. Edward W. Massie, St. Louis, addressed the Saline County Medical Society recently on "Acute Cardiovascular Emergencies."

SANGAMON

Bulletin Devoted to State Meeting.—The Bulletin of the Sangamon County Medical Society for May, 1950, was marked as a "Welcome to Springfield" to the officers, delegates and guests of the Illinois State Medical Society for the Annual Meeting of the Society, May 23-24-25. The issue was devoted to the program, historical information, biographic reports of the officers, committees and general activities of other groups meeting during the session. This 1950 session was the first time since 1942 that Springfield had been host to the annual meeting of the State Society which, this year, was designated as The Andy Hall Meeting.

Society News.—"Management of Post-Menopausal Bleeding" was the title of a talk before the Sangamon County Medical Society May 4 by Dr. John Brewer, Chicago.

Physicians Honored.—Drs. Charles Compton and Oscar F. A. Maxon, both of Springfield, were presented with Fifty Year Emblems and Certificates by Dr. Andy Hall, Mount Vernon, during the Annual Meeting of the Illinois State Medical Society.

WINNEBAGO

Personal.—Dr. Ward Burdick was inducted into his new post as county physician at the annual meeting of the Winnebago County Hospital recently. Dr. Burdick succeeds Dr. L. S. Greenwood who resigned. Other officers of the hospital chosen at the meeting were Dr. Roland Pritikin, president; Dr. B. C. Schnell, Jr., vice president and Dr. Eric Lofgren, secretary.

HEALTH DEPARTMENT ACTIVITIES

Vital Statistics and Standard Time.—Life officially begins and ends on standard time in Illinois.

"Residents of the approximately 500 Illinois communities where clocks were set ahead one hour to conform with daylight-saving time on April 30 should remember that the hour of birth or death set down on official certificates must be reckoned under standard time," Dr. Roland R. Cross, state Director of Public Health said recently.

The directive that hours of birth and death be listed under standard time is based on an opinion of the Attorney General of Illinois, originally issued in 1924 and reaffirmed in 1936.

Report on Tuberculosis.—The ceaseless drive against tuberculosis waged by local tuberculosis sanitariums, local and state voluntary tuberculosis

associations and the state Department of Public Health has resulted in "remarkable and substantial gains" against this disease, Dr. Roland R. Cross, state health director, stated recently.

A special report just compiled by the state Division of Vital Statistics shows that seven Illinois counties reported no deaths from tuberculosis in 1948. During the same year, 16 counties reported only one death each from this disease.

Putnam county reported no tuberculosis deaths during 1946, 1947 and 1948, while Schuyler county reported none in both 1947 and 1948. Other counties reporting no deaths from tuberculosis in 1948 are Calhoun, Edwards, Hamilton, Jersey and Wabash.

The report, which traced tuberculosis mortality from 1945 to 1948 inclusive, showed a steady decline in deaths from this cause. While 3,159 persons in the state died from tuberculosis in 1945, the 1948 figure dropped to 2,657.

By far the greatest number of deaths occurred among persons 40 years of age and older, Dr. Cross asserted. Statistics show that 1,497 of the 1948 tuberculosis deaths occurred in the 45 and older age bracket. This disease caused 864 deaths among persons 25 to 44, while less than 300 of the reported tuberculosis deaths were among those under 25.

Urge Vaccination Against Smallpox.—Dr. Leonard M. Schuman, chief of the Division of Communicable Diseases, urged smallpox re-vaccination every three to five years to "maintain a high level of immunity among all age-groups and totally prevent the disease."

Pointing to recent smallpox outbreaks of epidemic proportions in India, Chile and Scotland, Dr. Schuman said: "We must recognize the ease with which cases may be imported with the speed of modern travel."

He emphasized that a smallpox vaccination in childhood does not protect a person for life. There is a steady decline in immunity following the vaccination, and a large percentage of persons have lost a good share of protection in five to ten years.

"We must maintain our immunity against smallpox by repeated vaccination to eradicate this disease and be secure against its re-introduction into communities," Dr. Schuman asserted.

No case of smallpox has been reported to the Illinois Department of Public Health since 1947, and no death from this disease has occurred in the state in the last 11 years.

Changes in Staff.—Dr. John B. Hall has been appointed director of the Cook County Department of Public Health. Dr. Edward E. Piszczek, who resigned, became tuberculosis controller of the Suburban Cook County Sanitorium District. Dr. Hall has been a member of the Cook County staff since 1941.—Dr. Fred P. Long has been appointed commissioner of health of the Peoria City Health Department. He formerly served as director of the Lincoln-Lancaster County Health Department at Lincoln. In 1946-1947, he was chief of the Nebraska State Health Department's division of communicable disease.—Dr. Roger F. Sondag has been named director of the new Jackson County Health Department. Recently he served as director of the Bureau of Preventable Diseases of the Florida Board of Health.

GENERAL

National CARE Week.—May 1-7 was designated "National CARE Week" throughout the country coinciding with the fourth anniversary of CARE'S first package delivery at Le Havre, France, May 9, 1946. Since then over 9,000,000 parcels have been delivered to twenty-two countries. Service to some of those countries, Eire, Bulgaria, Hungary, Roumania and Poland, have since been discontinued at the governments' request. European countries now served are Austria, Belgium, Czechoslovakia, Finland (France, Great Britain, both eastern and western Germany, Greece, Italy, the Netherlands, Norway and Malta. In addition to order deliveries, CARE, as a non-profit agency, ploughs back all surplus funds into additional gifts for free distribution by overseas representatives of its twenty-six American member welfare agencies. To date, $2,-137,592 worth of "free" packages have been distributed in this way.

Physician Honored.—Dr. Lester R. Dragstedt, chairman of the department of surgery, University of Chicago School of Medicine, was recently elected to the National Academy of Sciences, Washington, D. C. Dr. Dragstedt, whose vagatomy operation for gastroduodenal ulcers, discovery of lipocaic, and studies on the function of the pancreas are famous in surgical history, became chairman of the university's department of surgery in 1947, the same year that he received the silver medal of the American Medical Association and the gold medal of the Chicago Medical Society for his discovery of gastric vagatomy.

Eli Lilly Host to Medical School.—Students and members of the faculty of the Chicago Medical School were guests of the Eli Lilly and Company on a tour of their plant recently. The tour included an inspection of the laboratories including the Research Laboratories, replica of the original laboratories and the Biological Laboratories at Greenfield, Indiana, where demonstrations were made showing the production of biological products.

Knudsen Award Goes to Dr. Holmblad.—Dr. Edward Charles Holmblad, treasurer and managing director of the American Association of Industrial Physicians and Surgeons, has been given the Knudsen Award. This is a medal of high honor in industrial medicine and is given to the practitioner making the outstanding contribution in the industrial field. Dr. A. G. Kammer, dean of the University of Pittsburgh School of Occupational Medicine, was chosen president-elect of the association and Dr. E. H. Carleton, medical director of Inland Steel Company, was installed as president.

MARRIAGES

Dr. Robert J. Schmitt, Chicago Heights, to Miss Shirley Burns, Michigan City, Ind., April 15.

Dr. John Peter Igini, Chicago, to Miss Jane Maren Stromsen of Oak Park, recently.

DEATHS

Henry William Berard, retired, Chicago, who graduated at the University of Illinois College of Medicine in 1894, died April 29, aged 83. He had practiced medicine on Chicago's northwest side for over 50 years.

Clarence T. Carr, LaGrange, who graduated at Hering Medical College, Chicago, in 1902, died March 28, aged 72.

Nunzio T. Cerasa, Peru, who graduated at Chicago Medical School in 1946, died suddenly, April 27, aged 40.

Homer O. Dolley, Bloomington, who graduated at Northwestern University Medical School in 1929, died suddenly, March 25, aged 49.

Aaron S. Eshbaugh, retired, Kankakee, who graduated at Hahnemann Medical College and Hospital in 1886, died April 19, aged 91. He had practiced medicine in Kankakee for 51 years.

Irenaeus L. Foulon, East St. Louis, who graduated at Washington University School of Medicine, St. Louis, in 1915, died April 17, aged 61. He had served as president of the St. Clair County Tuberculosis Association and of St. Clair County Medical Society.

John Robert Goodfellow, retired, Aurora, who graduated at Queen's University Faculty of Medicine, Kingston, Ontario, in 1904, died at Copley Memorial Hospital, April 19, aged 79.

Frank Green, Chicago, graduated at the University of Illinois College of Medicine in 1935, died in his home, April 30, aged 40.

James B. Harney, Chicago, who graduated at Chicago College of Medicine and Surgery in 1915, died April 25, in New Orleans, aged 70.

Dale E. Haworth, Beardstown, who graduated at Bennett Medical College, Chicago, in 1915, died April 7, aged 56. He was physician for the Chicago, Burlington and Quincy Railroad and served for many years as Health Officer of Beardstown.

Jefferson H. Heitman, Tioga, who graduated at Barnes Medical College, St. Louis, Mo., in 1899, died suddenly, March 28, aged 76.

John A. Koch, retired, Danville, who graduated at George Washington University School of Medicine in 1897, died April 20, aged 76.

Guy M. Langsdale, Lexington, who graduated at Chicago College of Medicine and urgery in 1911, died in Brokaw hospital, Normal, April 24, aged 67.

Peter J. Latz, Chicago, who graduated at Dunham Medical College, Chicago, in 1896 and Jenner Medical College in 1899, died April 14, aged 90. He had been on the staffs of Alexian Brothers and St. Elizabeth Hospitals.

Rolla E. Little, East St. Louis, who graduated at St. Louis University School of Medicine in 1906, died April 1, aged 71.

Frank E. McCord, Jacksonville, who graduated at Gross Medical College, Denver, Colo., in 1898, died April 10, aged 74. He was Health Officer for Morgan County for the last 7 years.

Bennett R. Parker, Chicago, who graduated at Rush Medical College in 1916, died April 15, aged 60.

John R. Pollock, Quincy, who graduated at Barnes Medical College, St. Louis, Mo., died April 22, aged 70.

Albert C. Purcell, Streator, who graduated at Rush Medical College in 1905, died April 24, aged 70.

Joseph C. Ross, Chicago, who graduated at Bennett Medical College, Chicago, in 1915, died March 26, aged 58. He had practiced medicine on Chicago's northwest side since graduation and was an alderman of the 40th ward.

William A. Skeele, Alton, who graduated at Northwestern University Medical School in 1932, died April 23, while returning from a vacation. He was 43.

Albert John Stokes, Chicago, who graduated at Bennett College of Eclectic Medicine and Surgery, Chicago, in 1914, died March 14, aged 63, of cerebral hemorrhage.

Harley Yandell, Springfield, who graduated at St. Louis University School of Medicine in 1911, died February 22, aged 65.

"FOR THE COMMON GOOD"

Health Talk Features Institute of Education by Radio.—On May 6, the Health Talk, "Guardians of Your Sleep" was telecast over WBNS-TV, Columbus, Ohio, as a special session of the Annual Institute for Education by Radio. The Educational Committee of the Illinois State Medical Society was invited to present this pioneer telecast by the Ohio State Medical Association which, this year, took over the health workshop incident to the Institute. Dr. Jonathan Forman was in charge. Abbott Laboratories provided the transportation of the Chicago "cast." The Ohio Chemical Company, through its local dealers, Columbus Hospital Supply Company and the Wendt-Bristol Company, provided equipment, and Dr. Robert Zollinger, professor and head of the department of surgery, Ohio State University College of Medicine, made available Miss Sarah Timms, RN., Surgical Supervisor, Surgical Pavilion, Ohio State University Hospital, for the telecast. Both Dr. Zollinger and Miss Timms provided gowns and other equipment.

As in the original telecast in Chicago over WGN-TV, the "patient" stole the show. The "patient" was Mr. Edward Pelikan, senior pharmacology student at the University of Illinois. Other Chicago participants were Drs. Max S. Sadove, head of the division of anesthesiology, University of Illinois College of Medicine; James H. Cross, clinical assistant in surgery, University of Illinois College of Medicine; Dr. Allan Talbot, resident in anesthesiology, V.A. Hospital, Hines; Theodore R. Van Dellen, Medical Editor of the Chicago Tribune, and assistant dean, Northwestern University Medical School.

All in all "Guardians of Your Sleep" in Columbus over WBNS-TV was a success.

Since the last issue of the Illinois Medical Journal the following telecasts have been presented:

"The Rh Factor", April 10, Israel Davidson showing the tests used in the proper blood matching and interviewing a real patient.

"Metal in Your Bones", April 17, with Joseph Farrington demonstrating all the metal appliances used in fracture repair.

"Your Heart's Story", April 24 with Andrew C. Ivy and Louis R. Krasno in a fluroscopic demonstration, together with an explanation of the flicker photometer as a research procedure.

Health Talk on Television took a two weeks' vacation, and returned to the air May 15.

Radio

Your Doctor Speaks over FM Station WFJL carried the following physicians in transcribed talks:

Theodore R. Van Dellen, May 11, Rheumatic Fever.

Louis Tavs, May 18, Care of the Skin.

Fred Hein, Ph.D., Exercise.

Lectures Arranged Through the Educational Committee of the Illinois State Medical Society:

William D. Larson, Annawan, Princeton Council Parents and Teachers, in Princeton, May 2, on Health of the School Child.

Franklin Corper, Leander Stone School in Chicago, May 8, on Importance of Good Posture.

Robert H. Sykes, Geneva, Washburne Trade School, May 9, in Chicago, Playing the Game of Life.

Robert Hagan, McKay Elementary School in Chicago, May 9, on Keeping Solid with Health.

W. W. Bolton, Yale School, May 9, on Timely Tips on Health.

Jerome H. Diamond, Hayt Elementary School in Chicago, May 10, on Building Body Bones and Beauty.

Arthur W. Fleming, Hyde Park High School in Chicago, May 11, on Teen Age Tips on Health.

John P. Coughlin, Frank W. Reilly School, in Chicago, May 11, an Keeping Solid with Health.

Ralph Spaeth, Parker High School in Chicago, May 11, on Teen Age Tips on Health.

Joseph T. O'Neill, Ottawa, Plumb School PTA in Streator, May 11, on Your Child's Health.

Emerson K. McVey, Lowell Girls Club in Harvey, May 17, on Understanding the Adolescent.

Margaret M. Scannell, Peck PTA in Chicago, May 17, on Common Childhood Diseases.

Walter S. Priest, Women of the Moose in Chicago, May 19, on Heart Disease.

Vernon DeYoung, The Twig Benders in Homewood, June 12, on Building Sound Health Attitudes in Children.

Lectures Arranged Through the Scientific Service Committee of the Illinois State Medical Society;

H. Close Hesseltine, Chicago, McDonough County Medical Society in Macomb, April 28, Therapeutic Advances in Obstetrics.

Joseph N. Rappaport, Evanston, Livingston County Medical Society in Pontiac, on Growing Up with Your Children.

Thomas D. Masters, Springfield, Effingham County Medical Society in Effingham, May 11, on Metabolic Bone Disease.

William W. Bauer, Ryburn Hospital in Ottawa, May 28, on Satisfactions in Service.

Philip Thorek, Chicago, Effingham County Medical Society, in Effingham, June 8, on Abdominal Surgery.

Health Talk:—The Secretary of the Educational Committee won first place in the publicity section of the Illinois Woman's Press Association contest recently with the Health Talk titled "Try Laughing."

highly effective in an unusually wide range of common skin disorders



Pragmatar is particularly useful in seborrheic dermatitis, and in the general care and hygiene of the seborrheic scalp.



Pragmatar often brings dramatic improvement in the common fungous infections—even in "athlete's foot."



Pragmatar is extremely valuable in eczematous eruptions, especially those in which a seborrheic factor is involved.

Smith, Kline & French Laboratories, Philadelphia

Pragmatar

the outstanding tar-sulfur-salicylic acid ointment

A Major Advance in Peptic Ulcer Therapy:

Banthine*

BROMIDE

Brand of Methantheline Bromide

AN ORIGINAL RESEARCH PRODUCT PROVIDING A NEW THERAPEUTIC APPROACH

ENCOURAGING results with Banthine in a group of refractory peptic ulcer patients were reported by Longino, Grimson, Chittum and Metcalf[1] and later in an enlarged series of patients by Grimson and Lyons[2]. Their observations interested other investigators[3-5] who have obtained equally promising results with this new drug.

These early observers[1,2] noticed that symptoms are sometimes relieved as soon as fifteen minutes following the institution of therapy, and in patients with long-standing, intractable pain discomfort becomes mild and intermittent or disappears. Their conclusions regarding healing of the ulcer are based on roentgenographic evidence.

Thorough pharmacologic investigations indicate that Banthine is a potent but safe drug in therapeutic doses. In these studies no abnormality of the blood or urine or other evidence of toxicity was observed.

BANTHINE: THE DRUG

Chemically, Banthine is β-diethylaminoethyl xanthene-9-carboxylate methobromide. Its generic name is methantheline bromide. It should be noted that the xanthene group bears no relation to the more familiar xanthine group of drugs.

A True Anticholinergic

Banthine may be described as a true anticholinergic drug. In therapeutic doses it controls autonomic stimuli which result in the vagotonia characteristic of the ulcer diathesis. This action is effected at

*Trademark of G. D. Searle & Co.

the ganglions of both the sympathetic and parasympathetic systems and, in addition, at the postganglionic nerve endings of the parasympathetic system alone. Thus, the resulting therapeutic action is that of control of excessive parasympathetic stimuli effecting a consistent reduction of gastric hypermotility and, in most patients, a reduction in the hyperacidity which is commonly associated with peptic ulcer.

ADMINISTRATION

Because of the prominence of emotional or situational stresses in the ulcer patient and because these stresses vary in each patient, it is necessary to adjust Banthine dosage to meet individual requirements. Initial dosage may be 50 or 100 mg. (one or two tablets) every six hours, day and night, with subsequent adjustment to the patient's needs and tolerance. In addition, the usual adjunctive measures of diet, rest and relaxation should be prescribed for at least the first few weeks of treatment.

It is important that the usual high night secretions be controlled. To this end it is recommended that the night dose be taken six hours prior to the usual time of arising. Further, after the ulcer is healed, it is important that the patient be placed on a maintenance dosage schedule if he is to have a reasonable assurance of nonrecurrence. The maintenance dosage may well be approximately one-half the therapeutic dose and no evidence of chronic toxicity has been observed in maintenance dosage although this experience covers only a period of sixteen months.

Patients may report dryness of the mouth, mild degrees of blurring of vision, slight difficulty of urination or gastric fulness; these symptoms usually decrease or disappear on continued medication but if they are severe they may require dosage adjustment. Untoward reactions with Banthine therapy have not been encountered.

More complete suggestions for Banthine administration are available to the medical profession in Searle Reference Manual No. 40.

Banthine is a product of Searle research. G. D. Searle & Co., Chicago 80, Illinois.

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PHYSICAL MEDICINE ABSTRACTS



AN AID TO WALKING FOR PATIENTS WITH SPASTIC HEMIPLEGIA

Leonard J. Yamshon, M.D., Los Angeles. In ARCHIVES OF PHYSICAL MEDICINE, 31:3:156, March 1950.

Ambulation by patients with hemiplegia differs from normal walking in the following particulars: (1) The pelvis on the hemiplegic side is elevated higher than normal during the swing phase of the step. (2) The center of gravity is shifted beyond the normal center when the body weight is borne on the normal foot and not so far as the normal center of gravity when the weight is carried on the involved leg. (3) The involved leg is maintained extended and is dragged forward through a circumducted arc. (4) There is a shorter time phase of weight bearing on the involved leg. (5) The step length of the affected lower extremity is shorter than normal. This results in a slow, uneven, and labored gait. Progression is accomplished mostly by the normal leg. The patient appears to be running away from part of himself: at times he looks as if he were walking sideways.

Elevation of the heel and sole of the shoe worn on the normal foot accomplishes the following: (1) It facilitates the breaking of contact between the ground and the involved foot: thus it (a) diminishes or eliminates the positive support reaction and the stretch reflexes and (b) allows for more adequate use of residual voluntary motion. (2) It facilitates ambulation by its effects on reflexes by decreasing the degree of shifting of the center of gravity beyond the normal when weight is borne on the normal leg. (3) It encourages weight bearing on the involved leg. (4) It makes for a more even step relationship between the involved and normal legs both in time and in length of step.

INTERNAL DERANGEMENTS OF THE KNEE JOINT: THEIR DIAGNOSIS AND TREATMENT

Herman J. Bearzy, M.D., Philadelphia. In ARCHIVES OF PHYSICAL MEDICINE, 31:3:162, March 1950.

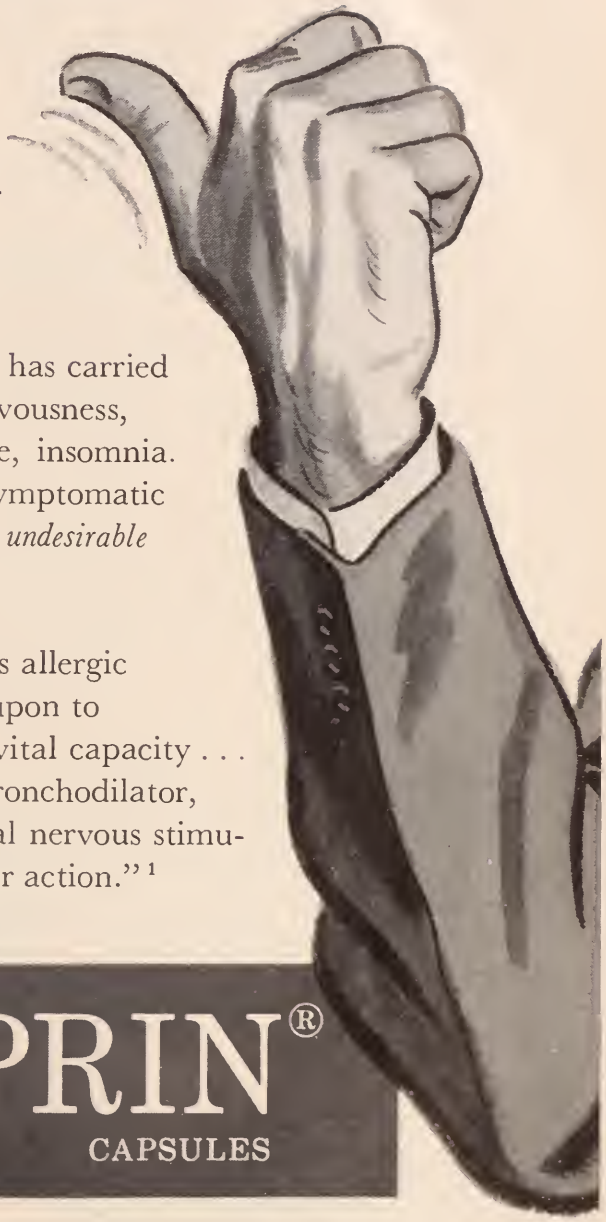
Injury to the Semilunar Cartilages.—Conservative Treatment: The knee should be manipulated if possible before much swelling has occurred. It may be performed with or without anesthesia, depending upon the pain tolerance of the patient.

If the reduction of the ruptured meniscus has been successful, the patient should be put to bed and the knee kept at full extension. An ice bag or cold compresses should be placed over the injured knee for three or four hours to minimize swelling and to relieve pain. Heat in the form of an infra-red lamp or moist compresses is applied immediately after the cold therapy. Heat

(Continued on page 44)

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When Phenobarbital is desired, NETHAPHYL.® In full or half strength.

1. Hansel, F. K.: Ann. Allergy, 5:397, 1947.

will promote relaxation of any muscle spasm and will aid in the absorption of the exudate in and around the knee joint. Massage above and below the knee also will aid in the absorption of any exudate present, promote relaxation of spastic muscles and maintain muscle tone. Therapeutic exercises, such as quadriceps static contractions, should be immediately started to prevent atrophy of the quadriceps extensor muscles of the thigh.

In twenty-four to forty-eight hours a posterior molded plaster splint should be applied, and it must be worn for four to six weeks or until pain and swelling have subsided. Quadriceps-setting exercises should be performed at least every ten to fifteen minutes while the cast is being worn, and a total of two to three hundred contractions of this powerful group of muscles should be performed daily. Many surgeons will bivalve the cast in eight to ten days to permit galvanic or faradic stimulation and massage of the quadriceps and hamstring muscles. Heavy resistance exercises such as those first decribed by DeLorme should be performed as soon as the cast is removed and should be continued for a period of three to four months.

Surgical Treatment: Preoperative Care.—The preoperative measures include strengthening and increasing the tone of the muscles and intrinsic ligaments surrounding the knee joint by the graded therapeutic exercises that have been described. If any abrasions and pustules are present on the skin, they must be cleared up before the incision is made into the knee joint.

Postoperative Care.—Liebolt and Stein have outlined an excellent program for the postoperative care of meniscectomies.

First and Second Postoperative Days

Passive motion of the knee and lifting of the entire leg is attempted.

Third to Sixth Days

Active quadriceps setting exercises, bilateral.

Knee and hip flexion.

Gravitational flexion of the knee by the physical therapist or physician.

The knee is supported in the popliteal space and slowly raised. The knee flexes because of the weight of the leg.

Active flexion of the entire leg.

Sitting up exercises to prevent reconditioning of the entire body.

Seventh to Ninth Days

Active knee flexion, bilateral.

Mild forced flexion of the knee.

Gastroc-nemius contraction with dorsal and plantar flexion of the ankle.

Increased active leg flexion, bilateral.

Raising the legs at the hip, feet together, performing abduction and adduction of the hips and legs.

Tenth to Fifteenth Days

Sutures are removed.

Patient is permitted to walk under close supervision to detect any faults in the stride or gait. Five to ten minutes of walking with a rest period of thirty minutes is permitted on the first day of walking. The walking time is increased daily while the resting time is decreased.

Forced knee flexion.

Active knee flexion is continued.

On the twelfth day the patient should be sent to the physical therapy room, if one is available, to start exercises with the stationary bicycle, rowing machine and wall pulleys. It is my practice to start the patient on the DeLorme resistance exercises at this time and have the patient continue them for many months.

Sixteenth to Twenty-eighth Days

The patient is told to participate in such sports as golf putting, shuffleboard, bicycling and walking. If the incision is completely healed, swimming is permitted also.

Goeringer begins active straight leg raising on the first postoperative day and permits the patient to use crutches as soon as he is able to flex his knee to a 90 degree angle.

Injuries of the Collarteral Ligaments.—Treatment: The patient should be put to bed and the knee supported with pillows. Cold compresses are immediately applied and kept on for a period of four to six hours. Heat is then prescribed to aid in the healing process and in absorption of any effusion. Aspiration of the effusion may be necessary to relieve the tension

(*Continued on page* 46)





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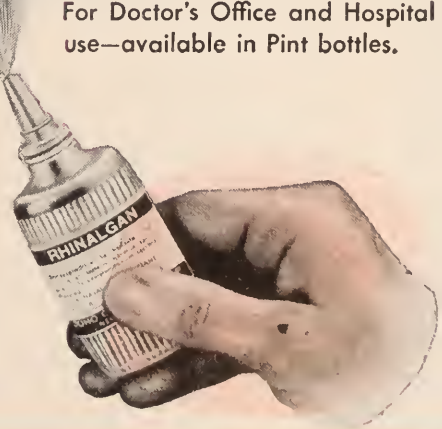
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Physical Medicine (Continued)

and to remove any blood which may be present in the knee joint.

All that is necessary in mild sprains is immobilization with a pressure dressing or an elastic bandage and prohibition of weight bearing for three to six days or until pain has disappeared. After three to six days the patient is permitted to bear weight with the aid of a cane and an elastic knee support or a Bigney adhesive strapping. Massage, heat and active resistance exercises should be started early and continued for several months after the patient has become ambulatory.

Quadriceps exercises are continued throughout the entire period of immobilization. If the surgeon will bivalve the cast, heat and massage may be given. Heavy resistance exercises should start when the cast is removed and be continued for four to six months thereafter.

Injuries to the Cruciate Ligaments.—Treatment: Complete, prolonged immobilization in a position of approximately 15 to 20 degrees of flexion for a period of two to three months is necessary to promote complete healing of the torn ligaments. If the knee has shown some improvement at the end of three months, a metal knee cage should be worn for a period of two to three months more, if necessary, to promote complete healing of the torn ligaments.

Quadriceps-setting exercises should be begun as soon as the cast has been applied and should be continued until more vigorous exercises are prescribed. Active, active assistive and heavy resistance exercises should not be attempted until the knee shows some stability.

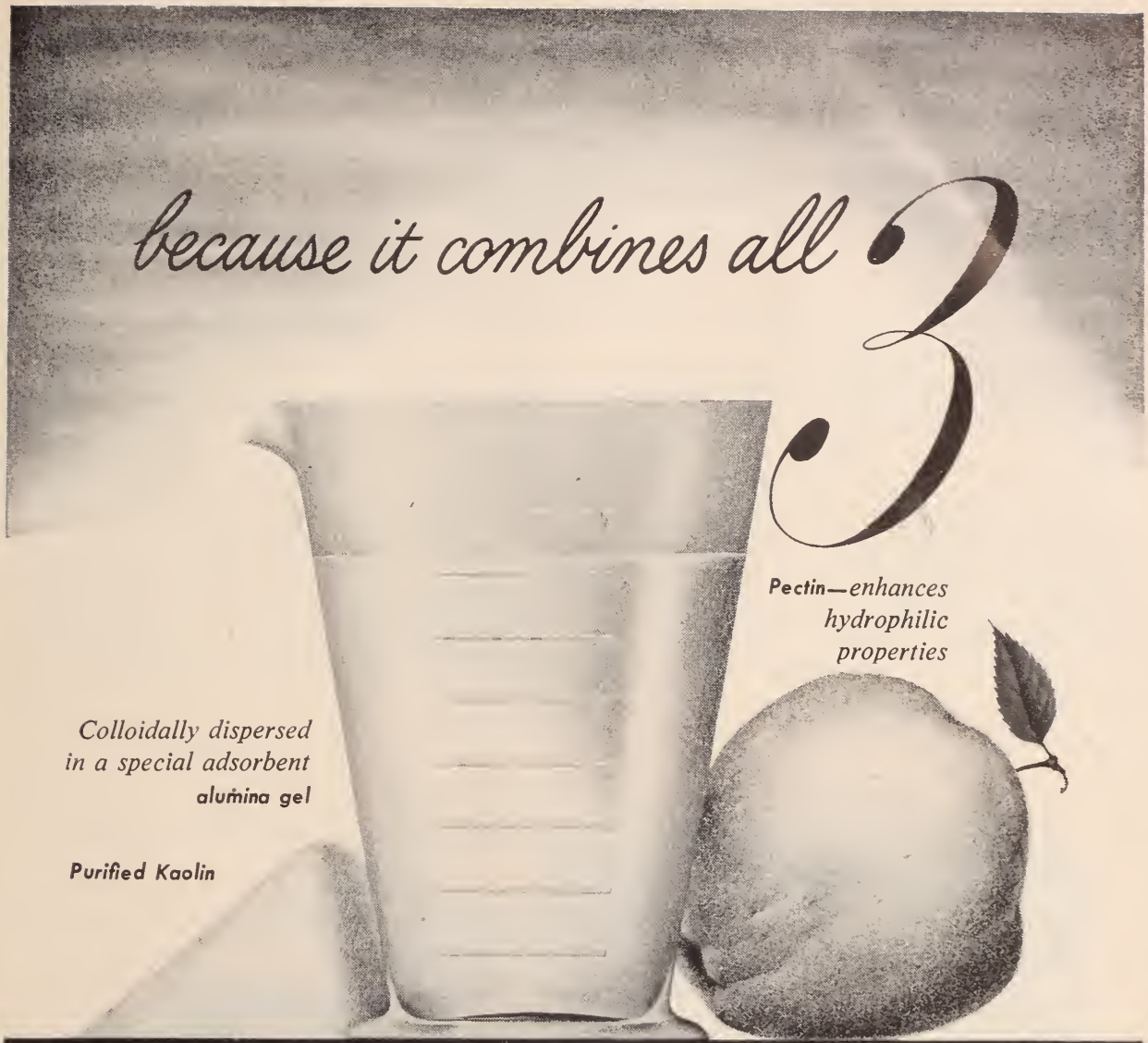
Summary.—Preoperative and postoperative care in the form of massage, heat, therapeutic exercises and proper immobilization is equally as important as any surgical technic to obtain a good stable knee. As in any program of physical reconditioning, a vital and integral part is played by the patient himself.

BRACING FOR CEREBRAL PALSY

Winthrop M. Phelps, M.D., Cockeysville, Md. In THE CRIPPLED CHILD, 27:5:10, February 1950.

It must be remembered that cerebral palsied children never have learned the fundamental

(*Continued on page* 48)



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motions of the arms, legs, tongue and the rest of the body.

The child who has had some condition present either from birth or shortly after never had an opportunity to learn any of the fundamental patterns. This child differs greatly from the child who previously learned the patterns and then lost them through a paralytic disease of one sort or another.

One method of training in these primary patterns consists of starting with the simpler patterns, and working up to the more complicated ones.

This is the essential of treatment, actual education. "Reeducation" does not accurately describe the process; and although "physical education" has other implications, that is what it consists of. These children, rather than being educated physically from a given point to a higher point of skill are educated from a very low primitive point of skill, up to, we hope, the normal level.

There can be no substitute for this education, and it is done under four general headings: physical therapy, which teaches arm and hand skills; speech therapy; and the use of apparatus. The latter, sometimes called functional therapy, teaches the child actual activities rather than primary motions. But the other three steps, of course, have to precede it.

In carrying out this program we find it is necessary to give the child as much help as possible, so we have three general groups of what might be called adjuncts to treatment — braces, drugs and surgery. All are useful in certain instances and in certain types, but all definitely are not useful in other types.

There are, in general, three kinds of braces. First, supportive braces, second, corrective braces, and third, control braces. Supportive braces are used in only the most unusual cerebral palsied cases.

The two types of braces most used in cerebral palsy are corrective braces and control braces. Control braces can be a great aid to athetoids.

(*Continued on page* 50)



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Athetoids may be able to smooth out a slight distortion of their gait, but those with marked distortion, who walk all day without control, are going to develop a very bad and fixed habit. The only remedy is to use braces which will only allow a perfectly straightforward flexion extension gait to be used with the feet in the right position, and not allow the spreading, twisting and turning. This brace would teach the child a better appearing walk. However, a brace will not produce any kind of a cure by itself. It must be used in connection with the therapies previously mentioned.

If the child wears the brace two or three years and develops a nice looking walk, when the brace is taken off the child will continue to walk with the type of gait which has been taught by his brace. But after about half an hour the unwanted motions will begin again and his gait will become poor; after a year or two more, his walk will remain good for perhaps half a day. After another year or so the walk will remain good all the time and the braces can be completely discarded. The process usually takes several years.

When a child is first put into such a brace there is a tendency, especially in the athetoids, for his muscles to fight the braces. Gradually he learns to relax and to let the brace do the moving for him from the relaxed position.

Joints in the braces for athetoid children must move very easily and freely; there should be no resistance to motion whatever. The only way to accomplish this is to use a ball-bearing joint with a side thrust bearing in it so that no matter how much the child pulls one way or another, or twists, it will still move freely.

These braces have to be made removable from the shoes. Anyone who has ever tried to put shoes on a twisting, squirming athetoid has found it impossible when the shoes are attached to the braces. The shoes must be put on first, with the heel placed well down in the shoe; then the brace attached by spreading the heel caliper and putting it into the slot in the heel of the shoe.

An athetoid oftentimes will have so much ten-

(*Continued on page* 52)

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sion that he is started with braces for only half an hour or fifteen minutes at a time, because they are so exhausting. Sometimes it is an extremely long and gradual process to get the child built up to brace tolerance, as it is called, because the whole principle is to condition his muscles to allow the braces to make the correct movements.

The same brace which is most useful in the athetoids is used by spastics to counteract their tendency toward a scissors gait.

In the severe ataxias, we found necessity for using a similar control brace to keep walking pattern smooth and to keep them from learning a distorted walk.

The control brace is one of the two chief types of braces used in cerebral palsy, and is definitely not indicated in all children. Probably 30 to 40 per cent of the children need this kind of brace.

The corrective brace is the second important type. It is very interesting to realize that in many instances children develop deformities which are not a part of their cerebral palsy at all. I think one of the most unfortunate sights is the adul cerebral palsy who walks with the knees and the toes turned in. On examining palsied children carefully, it is found that in most cases there is no more spasticity in the interna lrotators than there is in the external rotators, and that one cannot, on the muscle examination of such children. explain why they walk that way. Then one discovers that they have been late in learning to walk. What have they done in the meantime? They have been sitting on the floor with their feet out behind, turning the knees in and putting the feet in the extended equinus position. They sit this way for hours every day.

We have found by careful X-ray studies in a number of adult cerebral palsied persons with distorted walk that when the hips are in the straight lateral line, the knees are internally rotated about 90 degrees.

The only possible solution for these adults is an operation on the thigh bones to rotate them until the knee and hip are aligned. It is not

(*Continued on page* 54)



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Physical Medicine (Continued)

a condition of the muscles, nor is it a spastic or athetoid characteristic; it is an actual twist of the bone of the high resulting from sitting too long with feet out behind and the knees turned in and flexed.

In such a condition, we have found it possible to use two leg braces with knee joints and ankle joints, correcting these two braces with a rotator strap, so that as the patient walks the legs will be turned out, and the correction will, if persisted for a long period of time, gradually twist the bone in the other direction If this is done during childhood, malformation can be corrected without the necessity of surgery later.

This type would, therefore, be a corrective brace. A more common corrective brace is the short brace for the toe-walking child, especially the hemiplegic child who walks on his toes. In the past when the heel cord was tested and found short, it was customary to operate on the heel cords to lengthen them. The number of heel operations on such children usually averaged three before they completed their growth. It eventually was found that the spastic tendon does not grow as fast as the bone in the leg, and hence, usually after an operation has corrected the situation, when bone grows longer, the cord will become tight again. It was determined that the chief difficulty was the position of the foot in bed at night.

A night brace has been devised to correct this heel cord difficulty. It, too, is made separate from the shoe, with the toe-cap cut out of the shoe. However, if the brace is removed before growth is complete, results would be the same as if the heel cord had been operated on, and the cord would again shorten. Thus after the foot is in a corrected position, the brace must be worn throughout the growth period until the child is 16 or 17 years old. When the bone of the leg has attained full growth, there is no further tendency for contracture to occur and the patient will have an absolutely normal gait.

There are similar braces for straightening and correcting the knees and other joints for which the same principles hold true.

In summary, two main types of braces, the control and corrective braces, are used as aids oradjuncts in the rehabilitation of the cerebral

(*Continued on page 56*)

Sodium Gentisate: A New Approach to the Treatment of Arthritis

It has been estimated[1] that nearly 7,000,000 people (at least one in every 20 persons) in the United States have some form of "rheumatic" disease. Rheumatism (with arthritis the most important single cause) ranks first in prevalence among diseases, and second in the production of disability and invalidism. It is more common than the total number of cases of tuberculosis, diabetes, cancer and heart disease combined.

The most common of the severe forms of the arthritides is rheumatoid arthritis. Although its etiology still remains uncertain, there are factors upon which there is general agreement.[2] (1) Rheumatoid arthritis has a definite tendency to be familial. (2) Eighty per cent of the cases occur between the ages of twenty and fifty with the peak at thirty-five to forty. (3) Females are more commonly affected than males in a ratio of 3:1. (4) Investigation shows that in the period preceding the onset of symptoms, emotional shocks are very common and this is frequently manifested by a severe depression.[3] (5) Pregnancy causes an amelioration of symptoms in a significantly high proportion.[4] (6) Involvement of the liver, as in infectious hepatitis, causes a definite remission in a significant number of patients.[5]

Since Klinge's[6] original work in 1929, evidence has been accumulating that both rheumatic fever and rheumatoid arthritis are diseases of the interfibrillar substance of the connective tissue.[7] The nature of this material is not well understood, although it is presumably a mucopolysaccharide in combination with a protein. This theory holds that changes in the cellular components are secondary to changes in the interfibrillar material. The composition of two of the mucopolysaccharides found in interfibrillar material is known: (a) chondroitin sulfuric acid, and (b) hyaluronic acid.[8] Changes in chondroitin sulfuric acid have been studied in hyaline cartilage which is affected to a considerable degree in rheumatoid arthritis.[9]

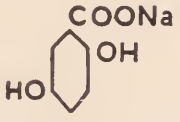
These changes have been on a purely morphological basis[9] and consist chiefly of destruction of hyaline cartilage, presumably due to interference with its blood supply by the overgrowth of pannus and granulation tissue, both beneath the subchondral plate and on the surface of the joint.

On the other hand, changes in the hyaluronic acid of the joint fluid have been shown to be present in active rheumatoid arthritis.[10, 11] These changes in active disease consist of depolymerization of the hyaluronic acid and an increase in the total amount of hyaluronic acid present. The excessive presence of hyaluronidase, moreover, has been acknowledged to produce a denaturization of mucin in the synovial fluid, the varying degrees of which are valuable for their diagnostic as well as prognostic indications.[12] Clinicians[13] have concluded that the increase of hyaluronidase activity may be responsible for the breakdown of interfibrillar cement.

A rational approach to the problem, therefore, demands a therapeutic agent that will act to inhibit the spreading effect of hyaluronidase.

Meyer and Ragan[14] treated patients having rheumatoid arthritis and acute rheumatic fever with sodium gentisate, a hyaluronidase inhibitor. Their results were uniform and notably favorable. Within a few days there followed a disappearance of pain, swelling and joint inflammation.

The increase in urinary glucuronic acid observed with salicylates does not occur with gentisates. This phenomenon has been assigned to the rapid oxidation of the gentisates.[15] It is indeed likely, as shown by examination of the structural formulas of these two compounds, that the antirheumatic action of the salicylate in forestalling the spread of hyaluronidase[16] is attributed to its partial oxidation in the body to a gentisate.



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The recommended dosage is two or more tablets three or four times daily (after meals and before bedtime).

GENTARTH Tablets are supplied in bottles of 100, 500 and 1,000 and are available at all pharmacies on prescription.

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palsied child. The part they play is definitely the part of an adjunct to treatment — they should be used only when very definitely indicated.

THE EFFECT OF CONTRAST BATHS ON THE PERIPHERAL CIRCULATION IN PATIENTS WITH RHEUMATOID ARTHRITIS

Joseph P. Engel, M.D., Khalil G. Wakim, M.D., Donald J. Erickson, M.D., and Frank H. Krusen, M.D., Rochester, Minn. In ARCHIVES OF PHYSICAL MEDICINE, 31:3:135, March 1950.

The venous occlusion plethysmograph with the compensating spirometer recorder was used to study the effect of contrast baths on the peripheral circulation of 51 patients with rheumatoid arthritis. Patients were divided into three groups. Patients of group 1 were given contrast baths to the forearms, including the hands; group 2, to the legs, including the feet, and group 3, to both the forearms and the legs simultaneously.

Contrast baths were given at water temperatures of 110 and 60F. (43.3 and 15.6C.) beginning with an initial period of ten minutes' immersion in the hot water, alternating in the cold and hot water every one and four minutes respectively, and ending with the hot water, making altogether a total of thirty minutes. This procedure produced a maximal average increase in peripheral blood flow of 95 per cent in the the forearms and 55 per cent in the legs.

An average increase of 0.3 to 0.5 degree C. in upper extremities when these alone were treated, 62 per cent in the lower extremities when these alone were treated and 100 and 70 per cent, respectively, in the forearms and legs when all the four extremities were treated simultaneously. Forty-five minutes after the contrast bath to four extremities simultaneously there was still an average increase in blood flow of 63 per cent in the forearms and 55 per cent in the legs.

An average increase of 0.3 to 0.5 degree C. in oral temperature was observed as a result of

(*Continued on page* 58)

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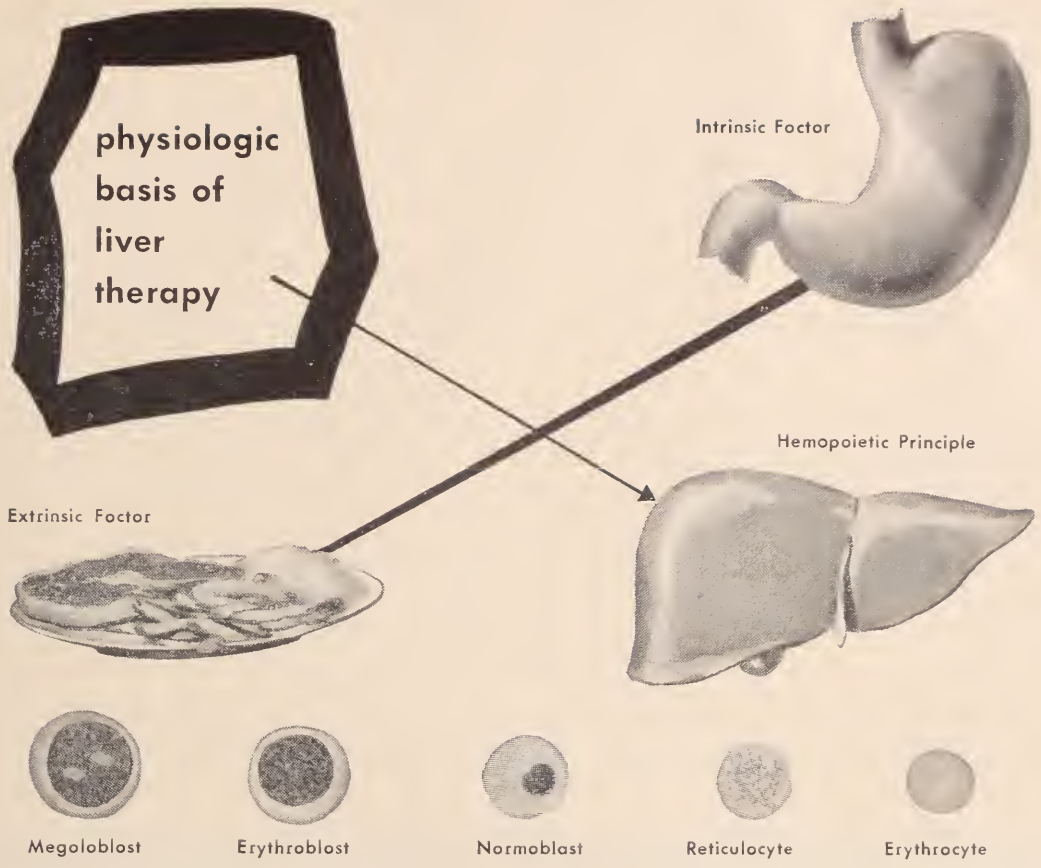
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contrast baths to the extremities. The temperature increase was greatest in those patients who received contrast baths to the four extremities simultaneously and least in those patients who received treatment of the legs only.

Higher blood flows and skin temperatures were observed in patients who had a low grade fever than in those whose body temperatures were normal.

REPAIR OF THE COLLATERAL LIGAMENTS OF THE KNEE

B. E. McConville, M.D., F.A.C.S., Seattle, Wash. In SURGERY, GYNECOLOGY AND OBSTETRICS, 90:3:291, March 1950.

The ligaments of the knee joint are frequently injured but seldom need surgical repair. Usually conservative treatment is sufficient for complete recovery.

If the knee joint is markedly swollen the patient is placed at complete bed rest and the knee is temporarily splinted and surrounded with ice caps. If swelling has not subsided after 48 hours an aspiration of the knee joint under sterile technic is done. When the swelling has subsided an evaluation of the extent of the injury is made.

Tears of the medial and lateral ligaments are treated by a plaster cylinder extending from above the ankle to the groin. The cast is applied after the initial swelling has subsided with the knee in approximately 10 degrees of flexion and is maintained for 4 or 5 weeks. The patient is instructed in quadriceps contracture at the onset of treatment. Following the removal of the cast an elastic bandage is applied and maintained as long as any swelling remains.

It is estimated that, including approximately 700,000 in resident institutions, there are 2,160,000 persons from 14 to 64 years of age who are incapacitated to such an extent that they must be considered to be out of the labor force permanently or at least for 10 years or longer. Theodore D. Woolsey, Pub. Health Rep., February 10, 1950.

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PROGRAM OF THE AMERICAN MEDICAL ASSOCIATION FOR THE ADVANCEMENT OF MEDICINE AND PUBLIC HEALTH

A Federal Department of Health

1. Creation of a Federal Department of Health of Cabinet status with a Secretary who is a Doctor of Medicine, and the coordination and integration of all Federal health activities under this Department, except for the military activities of the medical services of the armed forces.

Medical Research

2. Promotion of medical research through a National Science Foundation with grants to private institutions which have facilities and personnel sufficient to carry on qualified research.

Voluntary Insurance

3. Further development and wider coverage by voluntary hospital and medical care plans to meet the costs of illness, with extension as rapidly as possible into rural areas. Aid through the states to the indigent and medically indigent by the utilization of voluntary hospital and medical care plans with local administration and local determination of needs.

Medical Care Authority with Consumer Representation

4. Establishment in each state of a medical care authority to receive and administer funds with proper representation of medical and consumer interest.

New Facilities

5. Encouragement of prompt development of diagnostic facilities, health centers and hospital services, locally originated, for rural and other areas in which the need can be shown and with local administration and control as provided by the National Hospital Survey and Construction Act or by suitable private agencies.

Public Health

6. Establishment of local public health units and services and incorporation in health centers and local public health units of such services as communicable disease control, vital statistics, environmental sanitation, control of venereal diseases, maternal and child hygiene and public health laboratory services. Remuneration of health officials commensurate with their responsibility.

Mental Hygiene

7. The development of a program of mental hygiene with aid to mental hygiene clinics in suitable areas.

Health Education

8. Health education programs administered through suitable state and local health and medical agencies to inform the people of the available facilities and of their own responsibilities in health care.

Chronic Diseases and the Aged

9. Provision of facilities for care and rehabilitation of the aged and those with chronic disease and various other groups not covered by existing proposals.

Veterans' Medical Care

10. Maintenance of existing high standards of medical care for veterans, including extension of facilities where the need can be shown and, where practicable, care of the veteran in his own community by a physician of his own choice.

Industrial Medicine

11. Greater emphasis on the program of industrial medicine, with increased safeguards against industrial hazards and prevention of accidents occurring on the highway, at home and on the farm.

Medical Education and Personnel

12. Adequate support with funds free from political control, domination and regulation of the medical, dental and nursing schools and other institutions necessary for the training of specialized personnel required in the provision and distribution of medical care.

BOOK REVIEWS



THE EYE AND IT'S DISEASES: by 92 International Authorities. Edited by Conrad Berens, M.D., F.A.C.S., Managing Director of Ophthalmological Foundation, Inc.; President, Snyder Ophthalmic Foundation; President, American Academy of Ophthalmology and Otolaryngology; Diplomate and former Member, American Board of Plastic Surgeons; President, Pan American Association of Ophthalmology; formerly President of the Section on Ophthalomology of the American Medical Association; Fellow of the American Ophthalmological Society; Fellow of the American Illuminating Engineering Society; Fellow of the Aero-Medical Association; Vice-President, National Society for the Prevention of Blindness; Vice-President, International Society for the Prevention of Blindness. Second Edition. 436 Illustrations, 8 in color. 1092 Pages. W. B. Saunders Company, Philadelphia and London. 1949. Price $16.00.

The first edition of this fine book about the eye and its diseases was published in 1936. The thirteen years since that time have seen many changes in procedures of examination and treatment of ophthalmic conditions. These advancements have been incorporated in this new second edition, either by deletion or by addition.

Trachoma, for instance, rates a much shorter handling than in the earlier edition. Illumination, physiologic chemistry and gonioscopy produced additional chapters.

Each of the distingnished contributors has revised his section. The section on glaucoma by Doctor Harry S. Gradle was revised by Sir Stewart Duke-Elder. New plastic surgical procedure, antibiotics therapy and recent references in the bibliographies at the ends of chapters have been made a part of the book.

Among the new contributors are Doctors Peter Kronfield, "Tonometry" and Derrick Vail, "Operations for Glaucoma". Both are from Chicago.

There are some new illustration, but of the 436 total only 8 are in color. It is believed that the advances in color photography and reproduction might well have been utilized to further enhance the value of the material presented.

Division of the printing into two column pages is a distinct advantage.

Students and practitioners of ophthalmology and others who desire a valuable ophthalmological reference will definitely find it in this book.

L.P.A.S.

CLINICAL INTERPRETATIONS OF LABORATORY TESTS: by Raymond H. Goodale, M.D., Pathologist of the Worcester City Hospital, Worcester Hahnemann Hospital, Belmont Hospital, and Fairlawn Hospital, Worcester, Massachusetts; Clinton Hospital, Clinton, Massachusetts; Harrington Memorial Hospital, Southbridge, Massachusetts; Consulting Pathologist, Veterans Administration Hospital, Rutland Heights, Massachusetts. F. A. Davis Company, Philadelphia — 1949. 107 Illustrations. Price $6.50. Pages 605.

This book is brief clinical reference to the practical intrepretation of laboratory tests. The author correlates physiological processes with laboratory techniques, and interprets the normal and abnormal, from the standpoint of diagnosis and differential diagnosis. Clinical diseases and conditions are defined and procedures are described. In the opinion of the reviewer, the author has made too sketchy a work to cover such a comprehensive subject. The book is more suitable as an introduction to laboratory courses by the

(*Continued on page 62*)

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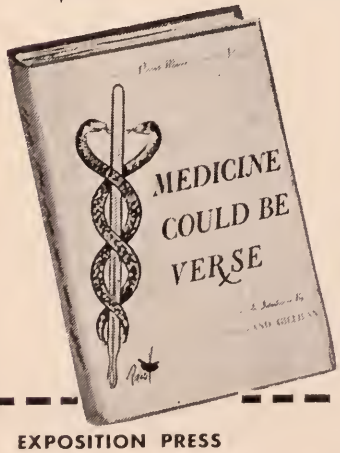
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BOOK REVIEWS (Continued)

student, but in many respects it falls short of being suitable for use in clinical practice.

J.W.F.

STEDMAN'S MEDICAL DICTIONARY: Edited by Norman Burke Taylor, M.D., F.R.S.C., F.R.C.S. (Edin.) F.R.C.P. (Can.) M.R.C.S. (Lon.) University of Western Ontario and formerly of the University of Toronto. In collaboration with Allen Ellsworth Taylor, D.S.O., M.A. The Williams & Wilkins Company, Baltimore — 1949. Pages 1361. Price $8.50.

This medical dictionary is an excellent standard text in the seventeenth revised edition. It has been brought to date by revision of old definitions and the addition of new words. Word derivation is briefly indexed. Short biographical data and appropriate illustrations are included where required for explanation. The appendix contains supplementary information: weights and measures, symboles, stethoscopic abbreviations, temperature scales, pathogenic microparasites and the new anatomical nomenclature.

J.W.F.

THE PHYSIOLOGICAL BASIS OF MEDICAL PRACTICE by Charles Herbert Best, M.D., F.R.S., F.R.C.P. and Norman Burke Taylor, M.D., F.R.S., F.R.C.S., F.R.C.P. Fifth Edition. The Williams and Wilkins Company. Price $11.00.

This book needs no introduction and this new edition should prove as successful as the others volumes. The book is more than one-hundred pages longer and contains more than one-hundred new illustrations. Older material has been deleted and many new subjects representing advancements in medical knowledge have been added. This is a completely revised and reset Fifth Edition and will continue to be a classic text on physiology.

T.R.V.D.

NORMAL VALUES IN CLINICAL MEDICINE by F. William Sunderman, M.D., Ph.D., Professor of Experimental Medicine and Clinical Pathology, University Texas Postgraduate School of Medicine; and Frederick Boerner, V.M.D., Late Associate Professor of Clinical Bacteriology, Graduate School of Medicine, University of Pennsylvania. Philadelphia and London: W. B. Saunders Company, 1949. 845 pages. 237 figures. 413 tables. Price $14.00.

Here is a compendium of normal values which covers practically the entire body. It includes an amazing amount of data and a diversity of subject varying from the normal scalp hair counts in blondes and black-haired individuals to normal sedimentation rates and electrocardiographs. It also includes doses of various drugs and actuarial tables. However, fields of knowledge such as cardiology, neurology, gynecology, etc., are omitted. The chemical data is well classified and instantly available. This includes values in blood, urine and gastrointestinal secretions. A book of this nature has been conspicuous by

(*Continued on page* 64)

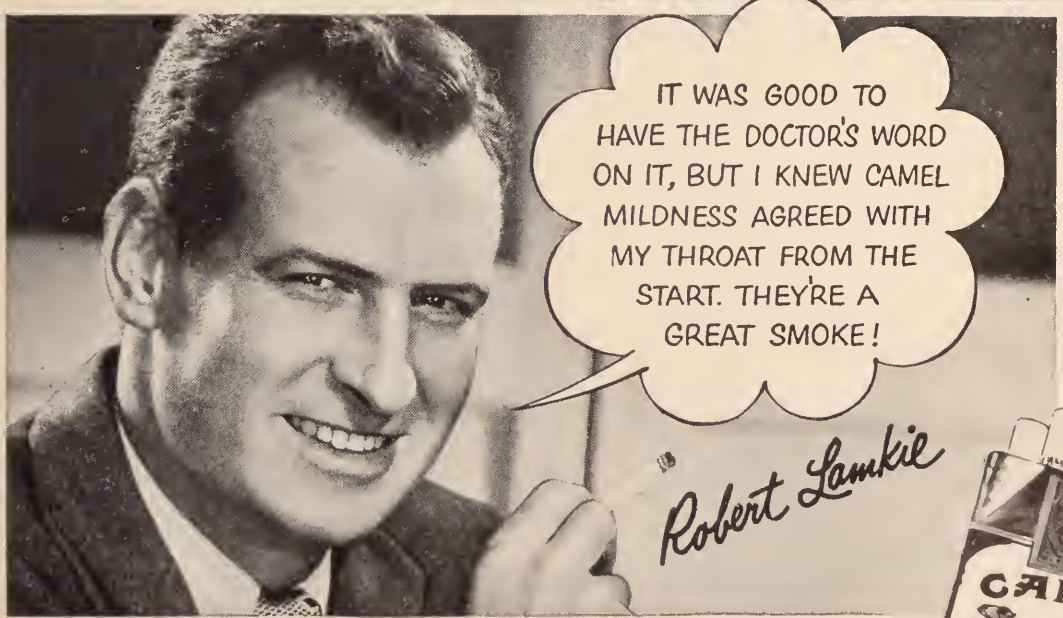
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BOOK REVIEWS (Continued)

its absence and fills a much needed gap in the physician's library because the normal often is difficult to find in books. Nowhere is so much factual information regarding the laboratory aspects of medicine obtainable in any one monograph.

T.R.V.D.

THE PHYSIOLOGY OF THOUGHT: By Harold Bailey, M.D., F.A.C.S. The William-Frederick Press. Price $3.75.

This book will be of interest to all friends of Dr. Bailey. He is now seventy-six years of age and has been in medical practice since 1897. He also is a life member of the American Academy of Ophthalmology and Otolaryngology.

Dr. Bailey has taken the time and effort to present his views on the function of thought. Delving into the unconscious is always productive of theory and philosophical concepts. In The Physiology of Thought, the author tries however to avoid these features and makes a real attempt to be definite and scientifically sound.

T.R.V.D.

BOOKS RECEIVED

The following books have been received for reviewing, and are herewith acknowledged. This listing should be considered as a sufficient return for the courtesy of the sender. Books that appear to be of unusual interest will be reviewed as space permits each month. Readers desiring additional information relative to books listed, may write the Editor who will gladly furnish same promptly.

MEDICAL GYNECOLOGY: (Second Edition) By James C. Janney, M.D., F.A.C.S., Associate Professor of Gynecology, Boston University School of Medicine; Associate Visiting Gynecologist, Massachusetts Memorial Hospital. 454 pages with 108 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price $6.50.

PROCTOLOGY IN GENERAL PRACTICE: By J. Peerman Nesselrod, B.S., M.S., M. Sc. (Med.); M.D. F.A.C.S., F.A.P.S., Associate in Surgery, Northwestern University Medical School; Associate of Surgical Division of Proctology, Evanston, Hospital, Evanston, Ill. Certified by the Central Certifying Committee in Proctology (Founders' Group) of the American Board of Surgery; Commander (MC), USNR. 276 pages with 64 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price $6.00.

PRINCIPLES OF HUMAN GENETICS: By Curt Stern, University of California, Berkeley. Illustration by Aloha M. Hannah, University of California, Berkeley. 628 pages with 198 illustrations. San Francisco, California, W. H. Freeman and Company, 1949. Price $7.50.

YOU AND YOUR HEART — A Clinic for Laymen on the Heart and Circulation. By Dr. H. M. Marvin. 306 pages. New York, Random House, 1950. Price $3.00.

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NEW DIRECTORY SHOWS ONE DOCTOR FOR EVERY 750 PERSONS IN U.S.

The United States at the beginning of 1950 had one doctor for every 750 persons. This is the best showing for any nation in the world, with the exception of Palestine where a temporarily high ratio exists because of an influx of refugee doctors.

Next to the United States, the largest supply of doctors in relation to population exists in Great Britain where, based on latest available official figures, there was one doctor for 870 persons. Other countries in order are: Iceland, 890; Denmark, 950; Canada and New Zealand, 970. Other nations range from 1,100 persons per doctor to 25,000 persons per doctor, a situation which exists in China.

The ratio for this country was revealed by Dr. George F. Lull, Chicago, secretary and general manager of the American Medical Association. It was based on an estimated national population of 151,000,000 and 201,278 doctors whose names will be contained in the eighteenth edition of the American Medical Directory, to be issued about June 1.

"This is the largest physician population in the history of the country," Dr. Lull said. "The previous directory, published in 1942, showed 180,496 names for the United States. The increase is due principally to the graduation of new doctors by medical schools.

"The directory will contain 47,399 names for the first time. These additions were partially offset by 26,617 deletions for deaths or other causes.

"In 1930, there was an estimated 154,500 doctors for a population of 122,775,000, or one doctor for every 795 persons.

"Since then, the amount of medical service a physician can render has increased markedly because of technological improvements and increases in auxiliary personnel."

Dr. Lull predicted a further increase in physician population as a result of an expansion in medical school enrollment.

"On the basis of the new schools that are being organized and the expansion of existing schools that is now under way, the freshman class in the medical schools of the United States will shortly exceed 7,000 students, an all time high," he pointed out. "The average size of the freshman class in the 10 years preceding the war was 6,016."

The new directory will contain 2,913 pages, or 112 more than the previous record volume issued in 1942. It will list the names, year of birth, medical school and year of graduation, specialty, if any, and addresses of physicians in Canada and the United States dependencies, as well as of those in the United States.

The total listing will be 219,678 physicians. The 1942 directory contained 201,272 names, including 4,209 doctors in the Philippines. The Philippines are no longer a dependency of the United States and have been dropped from the new directory.



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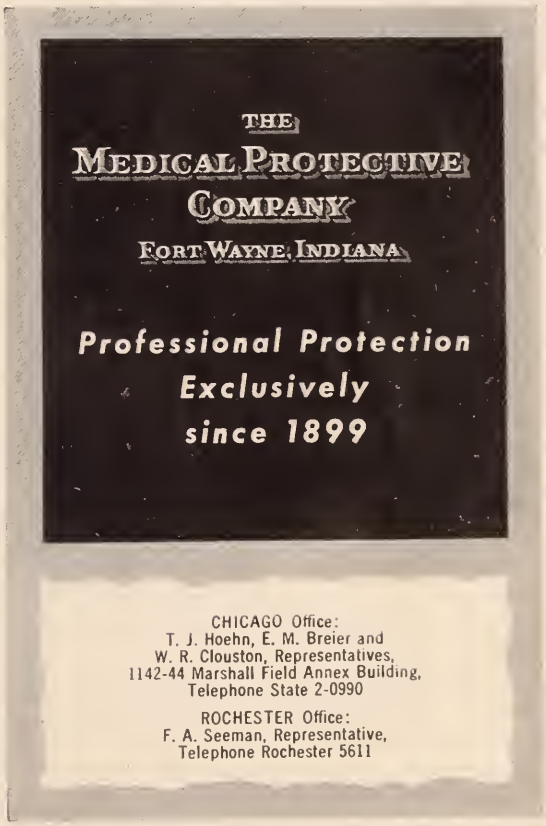
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NO PREVENTIVE OF GRAY HAIR, SAYS MEDICAL AUTHORITY

An agent which will prevent the graying of hair of human beings is as yet unknown, says a medical consultant in the March 25th Journal of the American Medical Association.

"Sometime ago it was suggested that both pantothenic acid and para-aminobenzoic acid might prove to be anticanitic (opposed to graying of hair) agents because they seemingly prevented the graying of hair in laboratory rats," he writes. "However, they have had no such effect on humans."

If the public health man knows all there is to know about tuberculosis, its cause and prevention, its epidemiology, case finding, contact finding, and supervision, its health education and community organization aspects, its hospital and rehabilitation phases, its economic reactions, its need for statesmanship and legislation, its challenges in unanswerable questions and the need for research, that person knows the bulk of what there it to know about public health. The rest of public health is largely application of the same procedures in other fields with changes of emphasis according to the special peculiarities of that field. William P. Shepard, M.D., Nat. Tuberc. A. Bull., Oct., 1949.



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HEALTH INVENTORY AT 40 HELPS PREVENT AGING

Forty is the time to take a health inventory.

At this age, the insidious, progressive disorders so significant in later years generally first become manifest, according to Dr. Edward J. Stieglitz of Washington, D. C.

Understanding of the science of aging is advancing rapidly, Dr. Stieglitz points out in a report to the American Medical Association Council on Foods and Nutrition which appears in the April 8th Journal of the association. Workers in medicine's newest field, geriatrics, are learning more about the limitations and needs of aging men and women.

"In many respects, the two decades from 40 to 60 are the most significant," Dr. Stieglitz says. "During these years of late maturity we help to determine the future health of the aged. Geriatric medicine, to be fully effective, must be largely preventive medicine."

The actual beginnings of common disorders such as hardening of the arteries, high blood pressure and degenerative arthritis occur far earlier than do their symptoms, Dr. Stieglitz emphasizes.

"The detrimental effects of obesity in the later years of life can hardly be overemphasized," he says. "Extensive studies of the effects of abnormal weight on expected mortality in persons otherwise normal reveal that those 15 to 24 per cent over weight present a mortality of 144 per cent of that expected. Those 25 per cent or more overweight show a mortality of 174 per cent of the expected rate. In the presence of disease of the heart and blood vessels, the hazards of overweight are even more marked."

Good diet is a powerful tool for keeping healthy and vigorous in later years, according to Dr. Stieglitz. Almost all the so-called degenerative diseases have one characteristic in common: impairment of the nutrition of certain cells.

Elderly people are more likely to suffer from lack of protein than from any other deficiency, and lack of protein is a signficant factor in development of tissue wastage and anemia. Loss of calcium and phosphorus apparently is a factor in the characteristic wasting away of bone seen in senile persons.

"Unfortunately, the majority of older persons dislike or resent the prescription of milk," Dr. Stieglitz says. "Milk is not only a valuable source of protein but also a major source of calcium.

"Moderate anemias are almost the rule in elderly persons. Milk is ordinarily deficient in iron. A great majority of elderly persons require supplemental adminstration of iron salts.

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Chronic infestation by the parasite that causes amebic dysentery is relieved by aureomycin, the new antibiotic drug, according to an article in the April 8th Journal of the American Medical Association.

Twenty-seven of a group of 38 patients treated with aureomycin were cured, says Dr. John Davis Hughes of the University of Tennessee College of Medicine, Memphis.

Practically all others of the group had great relief from symptoms of the disease, according to Dr. Hughes.

All 38 patients had been treated repeatedly for the disease with other drugs which failed to achieve satisfactory results.

Numerous persons in this country are infested with the parasite. Although some carriers have fatigue, nervousness and recurring diarrhea, others show no symptoms. However, carriers of the parasite are a considerable source of danger to other persons because of possible spread of amebic dysentery.

Health education is the application of measures to induce experiences which favorably influence knowledge, attitudes and actions for the prevention of disease and the perfection of health of the individual members of society. Ira V. Hiscock, Pub. Health News, Feb., 1949.

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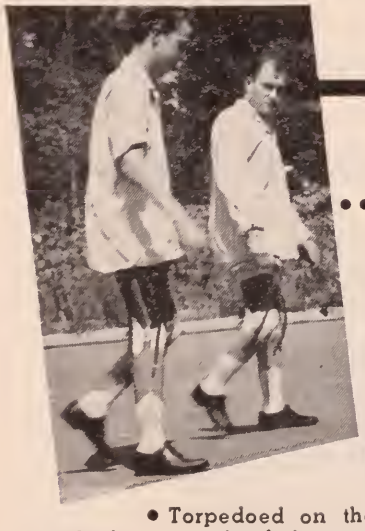
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